Economic Indicators

ISSN 0015-2757

A Monthly Report by the Research Division *Dr. Thomas K. Hitch, Senior Vice President* *Shurei Hirozawa, Vice President* *October, 1980*

12/16/80 B 3500 1 D

The Water Situation

Here in the middle of the salty Pacific Ocean we drink the finest fresh water in the world. For thousands of years rainfall has been percolating down through the porous volcanic rock to create great underground reservoirs of fresh water, some captured between impermeable lava walls called dikes but the greatest part in immense lens-shaped bodies of fresh water floating on the seawater that permeates the bases of the islands. These bodies of water are called Ghyben-Herzberg lenses. The fresh water in the pores of the lava rocks stays on top because it is lighter than seawater, and it presses the salty water down far below sea level. (See diagram inside.)

It was not until 1879 that Hawaii's great groundwater source was discovered; at that time James Ashley drilled the first artesian well at Honouliuli near Pearl Harbor. The early Hawaiians had used water from springs and streams, irrigating their taro crops by diverting stream water through ingenious ditch and terrace systems. The whaling vessels that stopped in the 1800s to replenish their supplies had to fill their casks from nearby streams. The developing sugar industry used surface water as the Hawaiians did, building extensive ditch and tunnel systems to bring water long distances from mountain streams for irrigating sugarcane.

Following the discovery of the islands' wonderful groundwater supply, agricultural crops expanded and flourished. The sugar plantations began intensive development of groundwater sources, and the dry and dusty coastal plains of the leeward side of Oahu turned verdant. Groundwater became the principal source of potable water for the city of Honolulu.

But in September 1979, just a hundred years after Ashley drilled the first well, the State Board of Land and Natural Resources, on the evidence of long term water level decline, rising salinity, and increasing pumpage, and after many public hearings and input by a citizen's water review commission, designated the entire Pearl Harbor basin as a Ground Water Control Area. A few months later the Board established a strict limit on the amount of water that can be pumped. The sustainable yield has been determined to be 225 million gallons a day, and this amount has been allocated among the military, the Board of Water Supply, Oahu Sugar Company, and private wells. If more than that is pumped the fresh water level will fall, and the great Ghyben-Herzberg lens could eventually become too salty for use.

This is indeed a sobering situation, but actually water supply problems are nothing new here. In 1917 the distribution system was an unreliable patchwork, and the citizens worried about fire protection and contaminated water. A commission appointed by the Mayor to investigate the water systems reported, "that the system is already over-taxed; that the artesian water level is steadily falling, and that if radical remedial steps are not promptly taken, its complete failure . . . is due at an early date." The City continued to suffer water shortages through the 1920s, and in 1929 the Territorial Legislature created the Board of Water Supply, which set about modernizing the system, tapping new water sources, sealing all leaking artesian wells, and metering water consumption to prevent waste—a move which reduced per capita consumption by about half. The Board did a fine job for many decades in providing reliable municipal water supplies for a rapidly growing Oahu. Only in recent years has Oahu's water supply become so critical that drastic action has become necessary.

Now that the City & County is limited by the State's action to some 80 million gallons a day from the Pearl Harbor basin, the Board of Water Supply and the State Department of Land and Natural Resources are energetically exploring new water sources outside the control area, including some on the windward side. Many additional wells are in the works now, but meanwhile new water hookups are being restricted to areas where water supplies are available. With reserves extremely limited in the Pearl Harbor basin area, development in central Oahu (where the City General Plan envisions the major part of Oahu's future population growth) will have to be slowed for a time.

But there are a number of hopeful prospects. Water from the Pearl Harbor basin (which produces 56 percent of Oahu's groundwater) is used not only to supply central Oahu but also some is transported to other leeward areas from Makaha to Hawaii Kai. New wells in Makaha and Waianae may be able to produce as much as six million gallons a day, and when Waianae has more water it won't need so much from the Pearl Harbor basin. Wells can be drilled to develop additional groundwater from the windward side to be transported through a pipeline from Waimanalo around Makapuu to Hawaii Kai, further relieving the Pearl Harbor basin supply. Oahu Sugar Company has entered into an agreement with the City to experiment with using sewage effluent from the Mililani sewage treatment plant for irrigation, and if this is successful it could eventually free more potable water for consumption. Hawaiian Electric Co.'s Waiau wells, which provide water for cooling in the Waiau power plant, may have some surplus good-quality water that HECO can spare for the public. Over the long run today's water problem will be solved, and central Oahu will still be able to grow. Meanwhile, the controls guarantee that our pure groundwater supply will be preserved at a safe level.

First Hawaiian Bank
Established 1858 • Member of F.D.I.C.

business activity-hawaii

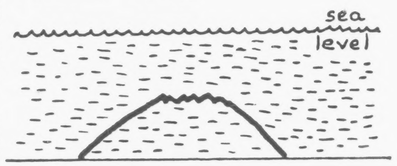
series	unit	period	number	percent change from preceding period	percent change year ago
TOURISM					
OVERNIGHT OR LONGER VISITORS	number	August	379,481p	−2.7	−3.8
	number	Jan.-Aug.	2,699,037p	.....	−0.2
Westbound	number	August	300,269p	−6.1	−6.1
	number	Jan.-Aug.	2,131,875p	.....	−1.7
Eastbound	number	August	79,212p	12.8	5.9
	number	Jan.-Aug.	567,162p	.....	5.8
AVERAGE DAILY VISITOR CENSUS[1]	number	August	113,748p	−4.1	−4.3
AVERAGE LENGTH OF STAY[1]	no. of days	August	10.8	−0.9	0
MEETINGS ATTENDANCE	number	Jan.-July	149,593p	.....	37.4
ORGANIZED GROUP TOURS	number	August	53,030p	−23.9	−17.3
NEIGHBOR ISLAND VISITORS[1]					
Maui	number	August	134,620p	−6.1	−7.1
	number	Jan.-Aug.	966,805p	.....	−1.9
Hawaii	number	August	71,731p	−12.6	−14.2
	number	Jan.-Aug.	545,359p	.....	−10.3
Kauai	number	August	74,630p	−15.5	−9.6
	number	Jan.-Aug.	549,492p	.....	−5.1
VISITOR ACCOMMODATIONS					
STATE	number	June	55,571	2.4	8.6
Oahu	number	June	34,393	0.2	9.5
Waikiki	number	June	30,514	0.2	10.3
Maui (includes 12 on Lanai)	number	June	9,926	8.6	8.7
Molokai	number	June	557	0	7.1
Hawaii	number	June	6,260	6.3	3.4
Kauai	number	June	4,435	2.6	9.1
HOTEL OCCUPANCY					
STATE	percent	August	75.2p	1.5	−3.5
Oahu	percent	August	78.1p	2.1	0.4
Maui	percent	August	65.4p	13.7	−13.3
Hawaii	percent	August	56.1p	12.2	−12.5
Kauai	percent	August	75.2p	5.3	−6.8
DEFENSE EXPENDITURES					
APPROPRIATED FUNDS TOTAL	mil. $	2nd Qtr.	323.1	−2.6	8.7
Military Payroll	mil. $	2nd Qtr.	132.1	1.1	7.4
Civilian Payroll	mil. $	2nd Qtr.	94.1	−15.4	6.8
Local Purchases	mil. $	2nd Qtr.	96.9	7.7	12.7
SUGAR					
SUGAR PRODUCTION	thous. tons	Jan.-Aug. 30	659.9	.....	−6.3
N. Y. RAW SUGAR PRICE	$/ton	August	660.48	14.8	111.4
PINEAPPLE SHIPMENTS					
CANNED[2]	thous. $	Jan.-Feb.	17,610	.....	−5.6
FRESH	thous. lbs.	Jan.-Aug.	138,054	.....	1.4
HONOLULU PRICES					
HONOLULU CONSUMER PRICE INDEX					
Urban Wage Earners and Clerical Workers (Revised), All Items	1967=100	August[3]	229.5	0.7	10.8
All Urban Consumers, All Items	1967=100	August[3]	230.1	1.1	11.1
PUBLIC UTILITIES					
ELECTRICITY GENERATED	mil. KWH	August	577.5	−0.4	−1.8
GAS SALES	thous. therms	August	4,094	−3.2	−2.4
TELEPHONES IN SERVICE	thous.	August	703.4	0.4	4.7

p=*preliminary.*
[1]*Estimated Westbound.*
[2]*Gross taxable income valued at time of shipment.*
[3]*Compared to June 1980.*

Ghyben-Herzberg lens

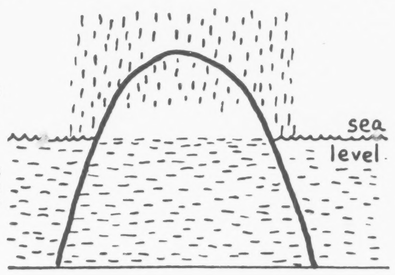
Wherever a fresh water lens forms, about 40 feet of fresh water extends below sea level for every foot that the fresh water table stands above sea level. This phenomenon, which occurs in some coastal areas and oceanic islands, was first noted by the scientists Ghyben and Herzberg. Here are simplified diagrams of how an island lens is formed.

Millions of years ago magma erupted from the floor of the Pacific Ocean.

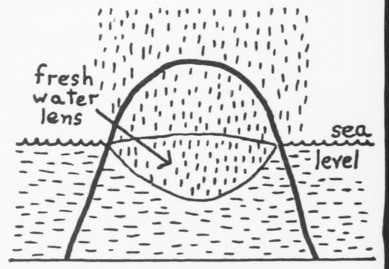


Seawater saturated the cracked and porous rock.

The volcano finally emerged above sea level, and rain began to fall on it. Some rainfall ran off as streams, but most was absorbed by the porous lava.



The sun continued to evaporate water from the sea, which turned into clouds, which dropped more rain. The fresh water continued to percolate through the rock, pressing the seawater down but floating on top of it because seawater is 1/40th denser than fresh water. The basal groundwater body is shaped like a biconvex lens, with the bottom surface bulging much more than the top. At the bottom is a transition zone of brackish water where salt water mixes with fresh.



Wells drilled into the rock can draw fresh water from far below sea level, but care must be taken not to drill too deep or pump too much. If more fresh water is pumped than is being recharged from rainfall, the fresh water table will drop and the salty water will rise alarmingly. Should the well water turn salty the crops would die and we would have to go back to drinking stream water.

business activity-hawaii [cont.]

series	unit	period	number	percent change from preceding period	percent change year ago
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE	mil. $	February	122.0	−0.9	33.3
	mil. $	Jan.-Feb.	245.2	.....	35.8
PRIVATE PERMITS AUTHORIZED					
RESIDENTIAL					
STATE	thous. $	Jan.-June	267,672	.....	2.4
C&C of Honolulu	thous. $	Jan.-Aug.	183,129	.....	4.9
Maui County	thous. $	Jan.-June	73,166	.....	36.7
Hawaii County	thous. $	Jan.-Aug.	83,544	.....	47.1
Kauai County	thous. $	Jan.-Aug.	44,441	.....	−37.3
SINGLE FAMILY UNITS					
STATE	number	Jan.-June	2,134	.....	−29.7
C&C of Honolulu	number	Jan.-Aug.	1,031	.....	−47.9
Maui County	number	Jan.-June	402	.....	−24.6
Hawaii County	number	Jan.-Aug.	835	.....	−15.1
Kauai County	number	Jan.-Aug.	246	.....	−37.1
MULTIPLE FAMILY UNITS					
STATE	number	Jan.-June	2,376	.....	21.3
C&C of Honolulu	number	Jan.-Aug.	1,822	.....	93.2
Maui County	number	Jan.-June	809	.....	29.4
Hawaii County	number	Jan.-Aug.	627	.....	38.7
Kauai County	number	Jan.-Aug.	401	.....	−47.2
NONRESIDENTIAL					
STATE	thous. $	Jan.-June	195,101	.....	64.9
C&C of Honolulu	thous. $	Jan.-Aug.	168,433	.....	31.5
Maui County	thous. $	Jan.-June	31,294	.....	119.3
Hawaii County	thous. $	Jan.-Aug.	30,481	.....	129.7
Kauai County	thous. $	Jan.-Aug.	18,169	.....	73.5
PUBLIC CONTRACTS AWARDED					
TOTAL GOVERNMENT PROJECTS	thous. $	Jan.-Sept.	179,124	.....	−48.8
BY LEVEL OF GOVERNMENT					
FEDERAL	thous. $	Jan.-Sept.	35,267	.....	−43.7
STATE	thous. $	Jan.-Sept.	103,154	.....	−53.7
COUNTY	thous. $	Jan.-Sept.	40,702	.....	−36.7
BY LOCATION OF PROJECT					
C&C of Honolulu	thous. $	Jan.-Sept.	132,025	.....	−50.7
Maui County	thous. $	Jan.-Sept.	14,261	.....	−54.2
Hawaii County	thous. $	Jan.-Sept.	27,259	.....	−27.3
Kauai County	thous. $	Jan.-Sept.	5,578	.....	−57.1
HONOLULU CONSTRUCTION COST INDEXES					
SINGLE FAMILY	1967=100	September	291.8p	.3.4	7.5
HIGH RISE	1967=100	September	295.9p	1.6	10.1
BUSINESS SALES					
GROSS BUSINESS RECEIPTS	mil. $	February 1980	1,660.6	13.7	16.2
	mil. $	Jan.-Feb.	3,120.8	.....	15.9
DIVERSIFIED MANUFACTURING	mil. $	February 1980	67.8	37.3	64.0
	mil. $	Jan.-Feb.	117.2	.....	47.7
DIVERSIFIED AGRICULTURE	mil. $	February 1980	13.3	.....	14.0
	mil. $	Jan.-Feb.	7.5	.....	−69.2
RETAILING	mil. $	February 1980	571.2	4.7	13.7
	mil. $	Jan.-Feb.	1,116.5	.....	13.4
WHOLESALING	mil. $	February 1980	406.7	8.7	7.7
	mil. $	Jan.-Feb.	780.7	.....	12.2
SERVICES	mil. $	February 1980	346.2	38.2	5.3
	mil. $	Jan.-Feb.	596.8	.....	5.2
OAHU NEW CAR AND PASSENGER TRUCK SALES	number	August	2,690p	14.4	−19.9

Personal Income - Revisions

The U.S. Department of Commerce recently released revised estimates of state total and per

finance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
BANKING					
TOTAL BANK DEPOSITS					
STATE	mil $	August 31	4,156.9	0.5	7.7
Honolulu County	mil $	August 31	3,413.9	0.2	7.0
Maui County	mil $	August 31	260.2	−0.7	2.3
Hawaii County	mil $	August 31	355.0	8.5	24.7
Kauai County	mil $	August 31	143.7	3.0	9.6
BANK DEMAND DEPOSITS					
STATE	mil $	August 31	1,283.5	3.4	3.9
Honolulu County	mil $	August 31	1,078.5	3.5	4.3
Maui County	mil $	August 31	81.8	3.8	−7.0
Hawaii County	mil $	August 31	88.3	1.1	10.1
Kauai County	mil $	August 31	34.8	4.7	3.6
DEBITS TO DEMAND DEPOSITS					
STATE	mil $	August	6,777.8	−1.4	4.5
Honolulu County	mil $	August	6,212.2	−1.2	4.7
Maui County	mil $	August	224.6	−8.4	−10.3
Hawaii County	mil $	August	241.9	−1.9	9.6
Kauai County	mil $	August	99.1	5.7	19.1
TURNOVER OF DEMAND DEPOSITS					
STATE	annual rate	August	64.43	0.1	1.5
Honolulu County	annual rate	August	70.32	0.3	1.7
Maui County	annual rate	August	33.56	−5.0	−6.5
Hawaii County	annual rate	August	33.05	−1.4	0.6
Kauai County	annual rate	August	34.91	4.2	16.3
TAX COLLECTIONS					
TAX COLLECTIONS—STATE	thous $	August	166,688	95.1	−7.4
	thous $	Jan.-Aug.	918,208	.....	6.8
Honolulu County	thous $	August	135,594	84.0	−10.1
	thous $	Jan.-Aug.	783,807	.....	6.3
Maui County	thous $	August	10,038	112.7	−2.5
	thous $	Jan.-Aug.	49,729	.....	6.7
Hawaii County	thous $	August	14,989	203.9	9.7
	thous $	Jan.-Aug.	59,214	.....	10.0
Kauai County	thous $	August	6,067	145.2	17.6
	thous $	Jan.-Aug.	25,459	.....	16.1

employment and unemployment-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
STATE					
Civilian Labor Force	thous	August	402.6p	−1.4	−0.4
Employment	thous	August	380.6p	−1.4	0.2
Unemployment	thous	August	22.0p	−0.5	−9.3
Unemployment Rate	percent	August	5.5p	1.9	−8.3
C & C OF HONOLULU					
Civilian Labor Force	thous	August	314.6p	−1.4	−0.7
Employment	thous	August	298.2p	−1.4	0
Unemployment	thous	August	16.4p	−0.6	−11.8
Unemployment Rate	percent	August	5.2p	0	−11.9
MAUI COUNTY					
Civilian Labor Force	thous	August	34.6p	−1.3	2.4
Employment	thous	August	32.5p	−1.8	1.4
Unemployment	thous	August	2.1p	7.9	20.6
Unemployment Rate	percent	August	6.0p	11.1	17.6
HAWAII COUNTY					
Civilian Labor Force	thous	August	35.5p	−0.7	−0.4
Employment	thous	August	32.3p	−0.3	0.5
Unemployment	thous	August	2.6p	−5.5	−10.3
Unemployment Rate	percent	August	7.3p	−5.2	−9.9
KAUAI COUNTY					
Civilian Labor Force	thous	August	18.0p	−1.6	0.3
Employment	thous	August	17.1p	−2.0	0.6
Unemployment	thous	August	0.9p	−5.3	−10.0
Unemployment Rate	percent	August	5.1p	20.0	−8.9
JOB COUNT BY INDUSTRY					
TOTAL JOBS—STATE	thous	August	455.2p	−0.8	2.1
SUGAR (mill and field)[2]	thous	August	8.9p	0	−1.7
PINEAPPLE (cannery and field)[2]	thous	August	9.1p	−16.1	−6.7
DIVERSIFIED MANUFACTURING (excluding sugar and pineapple)	thous	August	15.8p	1.0	−2.8
Durable Goods	thous	August	4.4p	−3.3	−6.5
Non-Durable Goods	thous	August	11.5p	3.1	−0.9
Apparel and Textiles	thous	August	3.2p	1.6	0
DIVERSIFIED AGRICULTURE (excluding sugar and pineapple but including agricultural self-employed)	thous	August[2]	7.3p	0	−11.5
CONTRACT CONSTRUCTION	thous	August	22.9p	−3.0	−1.1
TRANSPORTATION	thous	August	21.3p	−0.7	0.2
COMMUNICATION	thous	August	7.0p	0	2.9
UTILITIES	thous	August	2.6p	−1.9	2.0
RETAIL TRADE	thous	August	88.1p	−0.3	0.9
WHOLESALE TRADE	thous	August	19.1p	−0.8	5.0
FINANCE, INSURANCE AND REAL ESTATE	thous	August	31.8p	0.3	4.3
HOTEL SERVICES-STATE	thous	August	25.9p	1.8	4.0
Honolulu County	thous	August	16.1p	2.6	1.6
Maui County	thous	August	4.9p	3.2	11.5
Hawaii County	thous	August	3.3p	0	11.9
Kauai County	thous	August	1.7p	−5.7	−5.7
OTHER SERVICES	thous	August	77.9p	−0.6	5.6
FEDERAL GOVERNMENT	thous	August	32.0p	−0.2	7.6
Civilian Agencies	thous	August	13.4p	1.1	21.4
Defense Department	thous	August	18.7p	−1.1	−0.5
STATE GOVERNMENT	thous	August	42.3p	0.2	1.1
COUNTY GOVERNMENT	thous	August	17.8p	1.4	2.3
HOURS AND EARNINGS BY INDUSTRY					
CONTRACT CONSTRUCTION					
Average Hourly Earnings	dollars	August	11.84p	1.1	7.2
Average Weekly Hours	hours	August	37.9p	−2.1	2.4
MANUFACTURING					
Average Hourly Earnings	dollars	August	6.95p	−2.3	15.1
Average Weekly Hours	hours	August	37.1p	4.8	−5.6
COMMUNICATION AND UTILITIES					
Average Hourly Earnings	dollars	August	9.44p	1.0	10.2
Average Weekly Hours	hours	August	45.0p	0.9	2.7
TRADE					
Average Hourly Earnings	dollars	August	5.52p	25.5	6.6
Average Weekly Hours	hours	August	34.1p	−0.6	0
FINANCE					
Average Weekly Earnings	dollars	August	180.91p	11.6	5.5
HOTELS					
Average Hourly Earnings	dollars	August	5.07p	−16.3	−0.2
Average Weekly Hours	hours	August	33.9p	19.4	3.0
HIRED FARM WORKERS[3]					
Average Hourly Earnings	dollars	July	5.48	−3.9	10.5
Average Weekly Hours	hours	July	37.4	−3.9	−6.0

p=preliminary.

[1]Series includes agricultural employment during July survey week.

[2]The most recent estimate of agricultural jobs is included in the total job count even though the period may differ. Agricultural employment is only surveyed quarterly, in January, April, July, and October of each year. These dates apply to the field portions of sugar and pineapple jobs, too.

[3]Includes some office and supervisory workers.

capita personal income for the years 1977-79. For Hawaii, the 1979 figures were $8,356 million in total personal income and $9,223 on a per capita basis.

With the revisions, the gain in Hawaii personal income shrank from 13.1% as originally published to 11.3%, and per capita personal income dropped from 107.4% to 105.1% of the U.S. average. Hawaii's per capita personal income standing relative to the rest of the nation promises to drop still further once revised 1970-80 intercensal population estimates are available since the 1980 Census showed some 4% more Hawaii residents than earlier estimates indicated.

* * * * * * * *

Tax Collections

The August decline of 7.4% in State tax collections relative to the same month last year is only a decline on paper as the processing of August property tax payments was not completed during August. Since the end of the month fell on a weekend a significant portion of property tax payments due in August were not processed until September. Other tax categories were affected too with the month's end falling on a weekend. As a result total State tax collections for the first 8 months of 1980 increased only 6.8%, compared to a 14.6% increase for all of last year. But September collections, which will include the payments not processed in August, should show a greater increase.

Between 70 and 75 percent of total taxes go into the State general fund. Sixteen percent go to the Counties, and the remaining 10 to 15 percent are earmarked for various special purpose funds. Monies accruing the general fund through August 1980 exceeded last year's first 8 months total by 10.5%, a contracted rate of growth relative to the 1979 increase in general fund collections of 18.8%.

The following table shows tax revenues to the general fund by kind of tax for the first 8 months of 1980 and the increase over the year. Also the annual increases for 1979 have been provided for comparative purposes to demonstrate how sensitive tax collections are to economic conditions. The most striking reversal is exhibited by conveyance taxes which are paid on the transfer of real estate. From a 45 percent increase last year when the market was booming and prices were soaring, conveyance tax collections in 1980 have fallen 3% as a result of a very slow real estate market. While the pace of collections for most tax categories is much slower this year than last, inheritance taxes are running 50% ahead of last year and 20% faster than the pace in 1979. As Ben Franklin said, "In this world nothing is certain but death and taxes."

public assistance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
INSURED UNEMPLOYMENT (weekly average)	number	August	9,906	−10.1	3.4
INTRASTATE INITIAL CLAIMS	number	August	4,835	−17.1	17.2
INTERSTATE INITIAL CLAIMS	number	August	334	−21.6	−38.0
UNEMPLOYMENT INSURANCE BENEFITS	thous $	August	3,865	−6.7	9.8
PUBLIC ASSISTANCE					
RECIPIENTS[1]					
Income Maintenance	no. persons	August	70,879	0.2	1.9
Services	no. cases	3rd Qtr. 1980	13,320	3.4	−1.6
Medical	no. patients	August	54,871	19.8	0.0
Food Stamps	no. persons	August	104,860	0.5	10.2
PAYMENTS					
Income Maintenance	thous. $	August	9,341	−0.1	4.3
Services	thous. $	3rd Qtr. 1980	N.A.	.....	.....
Medical	thous. $	August	11,290	49.6	28.1
Food Stamps	thous. $	August	5,096	0.9	15.7

[1]Count of recipients is duplicated. A person may be counted in each category.

population, personal income-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
POPULATION					
DE FACTO—STATE	thous	July 1, 1979	1,012.9	.....	2.3
TOTAL RESIDENT—STATE	thous	July 1, 1979	914.7	.....	1.4
C & C of Honolulu	thous	July 1, 1979	729.1	.....	1.0
Maui County	number	April 1, 1980	71,191	.....	n.c.
Hawaii County	number	April 1, 1980	92,206	.....	n.c.
Kauai County	number	April 1, 1980	39,117	.....	n.c.
CIVILIAN RESIDENT—STATE	thous	July 1, 1979	856.8	.....	1.5
MILITARY PERSONNEL—STATE	number	April 1, 1980	61,019	.....	5.4*
Ashore	number	April 1, 1980	48,813	.....	8.7*
Afloat	number	April 1, 1980	12,206	.....	−5.8*
CIVILIAN DEPENDENTS OF MILITARY	number	April 1, 1980	64,023	.....	−0.8*
FOREIGN IMMIGRATION[1]	number	12 mo. total ending Sept. '80	5,682	.....	−17.4
PERSONAL INCOME					
TOTAL PERSONAL INCOME**	mil $	1st Qtr. 1980	9,178	3.1	13.5
Employment Income[2]	mil $	1st Qtr. 1980	7,199	2.9	12.8
Manufacturing	mil $	1st Qtr. 1980	417	3.5	21.9
Construction	mil $	1st Qtr. 1980	536	2.3	12.8
Wholesale	mil $	1st Qtr. 1980	321	3.9	13.4
Retail	mil $	1st Qtr. 1980	840	2.1	11.4
Finance, Ins. & Real Estate	mil $	1st Qtr. 1980	529	2.5	11.8
Trans., Comm. & Util.	mil $	1st Qtr. 1980	701	1.3	15.7
Services	mil $	1st Qtr. 1980	1,475	3.0	19.0
Farm & Other	mil $	1st Qtr. 1980	326	−3.8	16.8
Federal Civilian	mil $	1st Qtr. 1980	667	−0.6	6.0
Federal Military	mil $	1st Qtr. 1980	611	4.3	3.4
State & Local	mil $	1st Qtr. 1980	778	10.4	9.1
Property Income					
Dividends, Interest, Rent	mil $	1st Qtr. 1980	1,286	5.5	16.3
Transfer Payments (1.5)[3] minus Personal Contributions for Social Ins. (4.9%)	mil $	1st Qtr. 1980	693	1.2	16.3
PER CAPITA PERSONAL INCOME					
STATE PER CAPITA	dollars	1979	9,223	.....	9.3
PER CAPITA BY COUNTY					
C & C of Honolulu	dollars	1978	8,806	.....	10.6
Maui County	dollars	1978	7,676	.....	10.3
Hawaii County	dollars	1978	6,687	.....	9.2
Kauai County	dollars	1978	7,044	.....	10.0

n.c.=not comparable

*Compared to July 1, 1979

**Total personal income and all components are seasonally adjusted at annual rates.

[1]These immigration statistics include only those entering Honolulu ports and do not include status changers.

[2]Includes wage and salary disbursements, proprietors' income, and other labor income.

u.s. economic indicators

series	unit	period	number	percent change from preceding period	percent change year ago
GENERAL BUSINESS INDICATORS					
COMPOSITE INDEX OF 12 LEADING INDICATORS*†	1967=100	July	130.7p	4.6	−7.4
GROSS NATIONAL PRODUCT**					
In Current Dollars	bil $	2nd Qtr. 1980	2,521.3r	0.0	8.2
In 1972 Dollars	bil $	2nd Qtr. 1980	1,408.6r	−2.5	−1.0
PERSONAL INCOME**	bil $	August	2,137.9p	0.8	9.8
RETAIL SALES*	bil $	August	79,533	1.5	6.2
INDUSTRIAL PRODUCTION*	1967=100	August	140.5p	0.5	−7.6
BANKING AND CREDIT					
DEBITS TO DEMAND DEPOSITS**	bil $	July	37,549.8	2.1	17.2
TURNOVER OF DEMAND DEPOSITS**	annual rate	July	134.4	0.5	16.7
BANK LOANS*	bil $	August	864.8	1.2	5.0
AVERAGE PRIME RATE CHARGED BY BANKS	percent	September	12.23	10.0	−5.2
CONSUMER INSTALLMENT DEBT*	bil $	July	301,754	0.1	2.3
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE**	bil $	July	214.3	−0.9	−7.2
CONSTRUCTION COST INDEXES					
Residences	1972=100	May	185.0	1.3	6.4
Apts., Hotel, Office Bldgs.	1972=100	May	183.1	1.8	8.2
EMPLOYMENT					
CIVILIAN EMPLOYMENT*	thous	August	97,006	0.0	0.0
UNEMPLOYMENT*	thous	August	8,019	−2.3	30.9
UNEMPLOYMENT RATE*	percent	August	7.6	−2.6	28.8
PRICES					
CONSUMER PRICE INDEX (All Items)					
Urban Wage Earners and Clerical Workers (Revised)	1967=100	August	249.4	0.6	12.8
All Urban Consumers	1967=100	August	249.6	0.6	12.7
PRODUCER PRICE INDEXES					
Finished Goods*	1967=100	August	250.2	1.6	14.6
All Commodities	1967=100	August	273.1	1.2	14.6

e=estimated. *Seasonally adjusted.

r=revised. **Seasonally adjusted annual rate.

p=preliminary.

[1]Excludes one indicator series for which data are not yet available.

General Fund Tax Collections

	Jan.-Aug. 1980 ($ mil.)	Percent Change 8 mos.: 1980/79	Percent Change Annual 1979/78
Gen. Excise & Use	347.6	10.4	18.9
Individual Income	213.3	14.4	19.9
Corporate Income	30.5	22.2	40.9
Public Service Co.	20.1	5.4	8.4
Insurance Premiums	16.9	19.9	21.0
Liquor & Permits	5.9	-59.7	5.0
Tobacco	8.8	4.8	10.8
Banks & Other Fin. Corp.	4.6	16.0	24.4
Inheritance & Estate	3.3	49.9	31.1
Conveyance	1.3	-3.0	45.5
TOTAL	652.6	10.5	18.8

* * * * * * * *

First Hawaiian Bank
Established 1858
Member FDIC

Economic Indicators

ISSN 0015-2757

A Monthly Report by the Research Division *Dr. Thomas K. Hitch, Senior Vice President* *Shurei Hirozawa, Vice President* *Nov./Dec. 1980*

Astronomy in Hawaii

The wonders of space revealed by astronomy bring to mind such famous observatories as California's Mt. Wilson and Mt. Palomar with its 200-inch telescope, and Kitt Peak in Arizona. But the one that has taken the biggest stride in the past decade is Hawaii's own Mauna Kea, which now has 51,100 square inches of light-gathering area, the largest concentration in the world. Astronomy in Hawaii is not only big today, but it has the potential of becoming much larger and very important in world astronomical research.

Astronomy had not been an important curriculum at the University of Hawaii in the past mainly because of the lack of facilities. In the mid-1950s, site tests at Haleakala by University scientists found that the air at the summit was extremely pure and the sky relatively cloud-free, conditions that made for good astronomical observation. In due time a solar observatory was built on Haleakala, and in 1964 Dr. John Jefferies joined the University to head up a teaching and research program in astronomy. The University today has a sophisticated solar observatory and a lunar ranging observatory there. Astronomy flourished with State and federal aid, and on July 1, 1967 the University established the Institute for Astronomy in Manoa as the major research unit with Dr. Jefferies as its director.

Haleakala was chosen for the first observatory because a paved road went all the way to the summit and electric power was available there. Site tests at Mauna Kea in 1963 had established that this was a superior site but there was no road to the top nor was electricity available.

But with federal encouragement Mauna Kea eventually was developed. At 13,784 feet, Mauna Kea's summit is above 40 percent of the earth's atmosphere compared to 25 percent for Haleakala, a sizable difference in terms of astronomical observation. The vast expanse of the surrounding ocean helps to keep the inversion layer at a constant altitude of around 7,000 to 9,000 feet, and this holds down dust and other particulates and pollutants, keeping the atmosphere above dust-free. In addition, the atmosphere above the summit is extremely dry—important for measuring infrared radiation from stars and planets. It is also basically cloud-free with the proportion of clear nights among the highest in the world. This exceptional atmospheric stability permits more detailed studies of the stars and planets than possible elsewhere. Its distance from city lights insures an extremely dark sky, which allows exploration of objects at the very edge of the observable universe. So Mauna Kea has many assets, making it one of the prime sites in the world, with growing demands of noted institutions to locate here.

The first telescope built on Mauna Kea was the 24-inch instrument for the U.S. Air Force in 1968, followed the next year by a similar telescope for the National Aeronautics and Space Administration (NASA). The University now owns both telescopes and uses them in its research programs. In 1970 the University, with NASA funds, built an 88-inch optical-infrared telescope. Last year three more became operational—NASA's 120-inch infrared, Canada-France-Hawaii's 144-inch optical-infrared, and the United Kingdom's 150-inch infrared telescopes.

Now several institutions with important projects would also like to build in the University's science preserve atop Mauna Kea. The Vienna University Observatory wants to locate a 40-inch telescope there. The National Radio Astronomy Observatory wants to build a 25-meter radio telescope there for research in interstellar molecules and the organic matter that forms in dust clouds in space. This would cost $30 million to build and $3 million a year to maintain, with a staff of 30 in Hawaii. The project depends on funding by Congress for the National Science Foundation (NSF). A third project is the 10-meter radio telescope that the California Institute of Technology would like to build, with funding by NSF. Still another is the $50 million optical telescope that the University of California wants to build to provide the principal research tool for its astronomers. This would be the largest telescope in the world and the university has selected Mauna Kea as its preferred site. Finally, the NSF has made a $300,000 grant for a study of the comparative qualities of sites in this country with the objective of building a major national observatory using next-generation technology. Construction will cost between $100 million and $150 million, and Mauna Kea has been mentioned as the preferred site. Any of these projects would raise substantially Mauna Kea's scientific capability and prestige. However, the State Department of Land and Natural Resources and the University of Hawaii must approve any project on Mauna Kea.

The State has invested $15.3 million for astronomy from 1964 through 1979, and has annual operating costs of $1.2 million. The returns have been very good—not only for advancing scientific knowledge but also for improving Hawaii's economic base. Capital investments in astronomy in Hawaii by out-of-state organizations so far total $25.1 million, with annual operating costs of $6.9 million—which makes astronomy a bigger industry than anthuriums, aquaculture, or coffee. Over 200 jobs are directly provided by astronomy, and most of these are highly-skilled jobs, ranging from engineers to systems programmers. Jobs in astronomy could increase fivefold in the years to come, depending on the amount of expansion that is permitted on Mauna Kea. Economic benefits to the state and Hawaii County would be substantial, and the increasing prestige of our astronomical research facilities will undoubtedly attract many important meetings of scientists here.

First Hawaiian Bank

Established 1858 • Member of F.D.I.C.

business activity - hawaii

series	unit	period	number	percent change: from preceding period	percent change: year to year
TOURISM					
	number	October	285,880p	1.8	-8.5
	number	Jan.-Oct.	3,246,966p		-1.5
	number	October	221,933p	5.6	-10.4
	number	Jan.-Oct.	2,667,764p		-3.2
	number	October	63,347p	-16.4	-7.2
	number	Jan.-Oct.	706,092p		6.6
	number	October	74,604p	7.2	-10.4
	number	October	10.2	2.0	
	number	Jan.-Sept.	195,338p		-36.8
	number	October	63,605p	3.1	-10.1
	number	October	102,934p	7.6	-1.5
	number	Jan.-Oct.	1,166,433p		-3.1
	number	October	67,066p	14.3	-14.6
	number	Jan.-Oct.	862,349p		-11.6
	number	October	62,459p	4.3	-16.6
	number	Jan.-Oct.	864,160p		-16.6
	number	October	55,700	3.2	1.6
	number	October	34,103	-10.8	-6.6
	number	October	30,230	-10.0	-1.6
	number	October	9,360	1.4	-10.1
	number	October	656	1.2	-1.4
	number	October	6,344	1.8	1.6
	number	October	1,101	6.1	-4.6
	dollars	October	62.50	4.1	-8.5
	dollars	October	66.40	3.6	-3.0
	dollars	October	54.25	14.6	-14.2
	dollars	October	43.45	-16.2	-16.2
	dollars	October	64.80	4.1	-10.1
DEFENSE EXPENDITURES					
	mil. $	3rd Qtr.	340.7	-5.0	6.4
	mil. $	3rd Qtr.	191.7	-10.4	-5.2
	mil. $	3rd Qtr.	113.6	14.4	24.1
	mil. $	3rd Qtr.	97.1	3.1	4.3
SUGAR					
	thous. tons	Jan.-Nov. 1	912.116		-1.4
	$ per ton	October	334.64	15.9	162.0
PINEAPPLE SHIPMENTS					
	thous. $	Jan.-Feb.	17,610		-15.6
	thous. lbs.	Jan.-Oct.	170,240		7.8
HONOLULU PRICES					
	all items	October	233.6	1.7	10.5
	all items	October	234.6	2.0	11.1
PUBLIC UTILITIES					
	mil. KWH	October	569.6	2.5	-0.1
	thous. therms	October	3,439	-3.0	-1.4
	mcfs	October	707.2	0.2	4.1

p=preliminary
1 Estimated Westbound
2 Gross taxable income valued at time of shipment
3 Compared to August 1980

Tourism

The Hawaii tourist industry in 1980 is headed for its first year of decline in 31 years. Visitor traffic in October fell 8.5% below the same month last year and the 10-month-cumulative total dropped 1.5%. Contributing the greatest drag on the visitor total this year are Mainland group travel, down 20% so far in 1980, and traffic from Japan, down an estimated 7.5% through September. Higher air fare costs have had their greatest impact on these two markets. Area of residence statistics, covering only westbound traffic to Hawaii, show travel from the central states — the region suffering the most in the current recession and a heavy group travel market — to be the most depressed portion of the US tourist market.

business activity - hawaii [cont.]

series	unit	period	number	percent change: from preceding period	percent change: year to year
CONSTRUCTION					
	$	February	122.0	-4.9	33.3
	$	Jan.-Feb.	249.2		35.6
PRIVATE PERMITS AUTHORIZED					
	$	February	83,875		-5.6
	$	Jan.-Feb.	211,533		30.6
	$	February	77,338		43.0
	$	Jan.-Feb.	150,656		-27.9
	$	February	69,338		-52.4
	$	Jan.-Feb.	138,818		-52.4
	$	February	4,537		-22.6
	$	Jan.-Feb.	7,621		-19.1
	$	February	376		-31.1
	$	Jan.-Feb.	1,154		53.4
	$	February	5,161		96.1
	$	Jan.-Feb.	9,824		19.0
	$	February	1,113		50.2
	$	Jan.-Feb.	2,154		-32.9
	$	February	216,394		87.1
	$	Jan.-Feb.	418,744		47.1
	$	February	12,454		-1.8
	$	Jan.-Feb.	23,454		-4.1
PUBLIC CONTRACTS AWARDED					
	$	Jan.-Oct.	209,534		-47.4
	$	Jan.-Oct.	44,929		-81.2
	$	Jan.-Oct.	117,536		-48.2
	$	Jan.-Oct.	46,871		-77.0
	$	Jan.-Oct.	151,104		-51.1
	$	Jan.-Oct.	16,506		-86.2
	$	Jan.-Oct.	30,387		-82.2
	$	Jan.-Oct.	10,871		-78.8
HONOLULU CONSTRUCTION COST INDEXES					
	4	October	530.20	0.8	9.6
	4	October	242.76	0.2	8.0
BUSINESS SALES					
	$	February 1980	166.6	13.7	16.2
	$	Jan.-Feb.	3,139.5		19.3
	$	February 1980	61.6	37.3	24.0
	$	Jan.-Feb.	111.1		47.0
	$	February 1980	70.2		14.0
	$	Jan.-Feb.	136.5		-69.2
	$	February 1980	671.2	4.1	13.1
	$	Jan.-Feb.	1,116.5		13.4
	$	February 1980	406.1	8.7	17.7
	$	Jan.-Feb.	780.1		22.2
	$	February 1980	346.2	38.2	9.3
	$	Jan.-Feb.	646.6		6.2
	number	October	2,434p		-16.9

Countering these negative factors to a large extent is an influx of visitors here from Australia and New Zealand which the HVB attributes as the major reason for the leap in both the non-Japanese component of eastbound travel — up by almost 70,000, or 40% through September — and the foreign component of westbound travel, excluding Canadian visitors — up close to 200,000, or 45% through October (although many of these westbound travellers may be in transit and not planning to stop off in Honolulu).

A real star performer and another saving factor for the industry this year has been the meetings market where attendance was up 50,000, increasing by 36.8% through October. Unfortunately, this segment of the travel industry is

finance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
BANKING					
TOTAL BANK DEPOSITS					
STATE	mil $	October 31	4,227.9	1.1	8.9
Honolulu County	mil $	October 31	3,451.0	1.2	7.8
Maui County	mil $	October 31	277.3	1.6	8.7
Hawaii County	mil $	October 31	347.7	0.3	17.4
Kauai County	mil $	October 31	151.8	−0.3	16.5
BANK DEMAND DEPOSITS					
STATE	mil $	October 31	1,230.1	−0.1	3.5
Honolulu County	mil $	October 31	1,031.3	0.4	3.5
Maui County	mil $	October 31	83.6	1.1	2.8
Hawaii County	mil $	October 31	83.9	−3.5	5.2
Kauai County	mil $	October 31	31.3	−7.5	−0.8
DEBITS TO DEMAND DEPOSITS					
STATE	mil $	October	7,306.5	−0.8	10.5
Honolulu County	mil $	October	6,664.9	−1.2	9.9
Maui County	mil $	October	275.0	0.8	8.6
Hawaii County	mil $	October	261.8	6.0	17.8
Kauai County	mil $	October	98.5	4.8	13.3
TURNOVER OF DEMAND DEPOSITS					
STATE	annual rate	October	71.25	1.3	8.4
Honolulu County	annual rate	October	77.70	0.9	8.8
Maui County	annual rate	October	39.70	0.9	5.6
Hawaii County	annual rate	October	37.66	8.7	8.7
Kauai County	annual rate	October	36.23	10.4	11.5
TAX COLLECTIONS					
TAX COLLECTIONS—STATE	thous $	October	98,085	−31.0	8.2
	thous $	Jan.-Oct.	1,158,437	.....	11.6
Honolulu County	thous $	October	85,476	−32.2	7.7
	thous $	Jan.-Oct.	995,418	.....	11.5
Maui County	thous $	October	5,138	−30.4	13.7
	thous $	Jan.-Oct.	62,246	.....	11.2
Hawaii County	thous $	October	5,198	−8.9	17.1
	thous $	Jan.-Oct.	70,119	.....	10.2
Kauai County	thous $	October	2,274	−22.2	−0.7
	thous $	Jan.-Oct.	30,654	.....	17.5

employment and unemployment-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
STATE					
Civilian Labor Force	thous	October	395.2p	0.3	−0.7
Employment	thous	October	372.7p	0.5	−0.3
Unemployment	thous	October	22.5p	−4.3	−6.6
Unemployment Rate	percent	October	5.7p	−5.0	−6.6
C & C OF HONOLULU					
Civilian Labor Force	thous	October	309.3p	0.3	−1.4
Employment	thous	October	292.5p	0.5	−0.9
Unemployment	thous	October	16.8p	−4.0	−9.4
Unemployment Rate	percent	October	5.4p	−5.3	−8.5
MAUI COUNTY					
Civilian Labor Force	thous	October	32.9p	−0.3	3.5
Employment	thous	October	30.7p	0.3	3.4
Unemployment	thous	October	2.2p	−8.3	4.8
Unemployment Rate	percent	October	6.7p	−8.2	1.5
HAWAII COUNTY					
Civilian Labor Force	thous	October	35.3p	0.7	1.1
Employment	thous	October	32.7p	0.9	1.1
Unemployment	thous	October	2.6p	−1.9	2.0
Unemployment Rate	percent	October	7.4p	−1.3	1.4
KAUAI COUNTY					
Civilian Labor Force	thous	October	17.7p	−0.3	1.2
Employment	thous	October	16.8p	0	0.9
Unemployment	thous	October	0.9p	−5.3	0
Unemployment Rate	percent	October	5.1p	−7.3	0
JOB COUNT BY INDUSTRY					
TOTAL JOBS, STATE[1]	thous	October	444.0p	1.5	0.9
SUGAR AND BEET[2]	thous	October	9.0p	1.1	0.6
PINEAPPLE CANNING AND FRESH	thous	October	3.8p	−45.3	5.6
DIVERSIFIED MANUFACTURING					
(INCLUDING SUGAR AND PINEAPPLE)	thous	October	15.7p	−0.9	−4.9
Durable Goods	thous	October	4.1p	−2.4	−10.9
Non-Durable Goods	thous	October	11.6p	−0.9	−2.5
Apparel and Textile	thous	October	3.2p	−1.6	−3.1
DIVERSIFIED MANUFACTURING					
(EXCLUDING SUGAR AND PINEAPPLE)					
but including agriculture, self-employed	thous	October[2]	9.0p	23.3	−8.2
CONTRACT CONSTRUCTION	thous	October	22.1p	42.1	−5.4
TRANSPORTATION	thous	October	21.4p	−0.2	−0.7
COMMUNICATION	thous	October	7.0p	−0.7	2.2
UTILITIES	thous	October	2.6p	0	2.0
RETAIL TRADE	thous	October	86.2p	−0.5	−1.8
WHOLESALE TRADE	thous	October	18.9p	0	2.7
FINANCE, INSURANCE, AND REAL ESTATE	thous	October	31.2p	−0.8	2.1
HOTEL SERVICES, STATE	thous	October	26.5p	3.1	4.5
Honolulu County	thous	October	16.1p	2.9	0.3
Maui County	thous	October	5.3p	5.0	18.0
Hawaii County	thous	October	3.4p	1.5	6.3
Kauai County	thous	October	1.9p	5.7	8.8
OTHER SERVICES	thous	October	79.3p	1.1	4.3
FEDERAL GOVERNMENT	thous	October	29.5p	−1.0	−1.5
Civilian Agencies	thous	October	10.8p	−5.3	−1.8
Defense Department	thous	October	18.7p	1.6	−1.1
STATE GOVERNMENT	thous	October	44.7p	14.2	4.3
COUNTY GOVERNMENT	thous	October	13.1p	0	6.5
HOURS AND EARNINGS BY INDUSTRY					
CONTRACT CONSTRUCTION					
Average Hourly Earnings	dollars	October	12.01p	0.4	6.0
Average Weekly Hours	hours	October	34.9p	−3.1	4.2
MANUFACTURING[3]					
Average Hourly Earnings	dollars	October	6.80p	−2.6	2.4
Average Weekly Hours	hours	October	40.6p	5.4	3.6
COMMUNICATION AND UTILITIES					
Average Hourly Earnings	dollars	October	9.48p	0.6	10.1
Average Weekly Hours	hours	October	45.0p	−0.4	0.7
TRADE					
Average Hourly Earnings	dollars	October	5.84p	3.9	12.1
Average Weekly Hours	hours	October	33.0p	−0.9	−0.3
FINANCE					
Average Weekly Earnings	dollars	October	181.32p	−0.7	5.6
HOTELS					
Average Hourly Earnings	dollars	October	5.53p	0.2	7.4
Average Weekly Hours	hours	October	29.9p	−1.3	−9.7
HIRED FARM WORKERS					
Average Hourly Earnings	dollars	October	5.83	6.4	10.8
Average Weekly Hours	hours	October	39.0	4.3	2.4

p=preliminary.

[1]Series includes agricultural employment during October survey week.

[2]The most recent estimate of agricultural jobs is included in the total job count even though the period may differ. Agricultural employment is only surveyed quarterly, in January, April, July, and October of each year. These dates apply to the field portions of sugar and pineapple jobs, too.

[3]Includes some office and supervisory workers.

expected to be a negative factor for Hawaii tourism next year. It is a cyclical market, and in addition, businesses are anticipated to opt for closer, less expensive locations in light of the weak economy.

Another positive influence on the visitor total this year, although to a much lesser extent, has been travel here by US residents on an independent rather than group basis — up 73,812, or 4% through October. However, independent travel has begun to weaken in recent months and for the Aug.-Oct. 1980 period fell 6.9% behind last year.

Travel to the Neighbor Islands has been particularly hard hit this year with the Neighbor Islands more dependent than Oahu on group travel — presently a depressed market — and with the common fare up from $23 to $32. West-bound traffic to Maui has held up the best, down only 3.4% so far this year. But Kauai traffic is off 5.8% and visitors to the Big Island are down 11.6%.

U.I. Claims

The big jump in September — a more than doubling of the number of intrastate claims filed for unemployment insurance — occurred when the carpenters who were out on strike for the month applied for U.I. benefits.

Personal Income

Hawaii was not unaffected in the second quarter of 1980 when output nationally tumbled at an annual rate of 9.1%, plunging the nation deep into recession. According to figures compiled by the U.S. Department of Commerce, Hawaii's total personal income (TPI) rose only 5.5% at an annual rate in the

public assistance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
NO. REG. UNEMPLOYMENT					
WEEKS CLAIMED	number	September	17,372	75.4	108.2
INTRASTATE INITIAL CLAIMS	number	September	11,079	129.1	136.6
INTERSTATE INITIAL CLAIMS	number	September	510	52.7	24.7
UNEMPLOYMENT INSURANCE BENEFITS	thous $	September	4,683	21.2	70.1
PUBLIC ASSISTANCE					
RECIPIENTS					
Aid to Families with Dependent Children	no. persons	September	70,995	0.2	2.0
Services	no. cases	3rd Qtr. 1980	13,320	3.4	−1.2
Medical	no. patients	September	49,764	−9.3	9.1
Food Stamps	no. persons	September	106,278	1.4	10.7
PAYMENTS					
Aid to Families with Dependent Children	thous $	September	9,415	0.8	5.2
Services	thous $	3rd Qtr. 1980	N.A.		
Medical	thous $	September	8,760	−22.4	21.8
Food Stamps	thous $	September	5,185	1.7	17.9

population, personal income-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
POPULATION					
STATE	number	April 1, 1980	1,056,500p		n.c.
Honolulu County	number	April 1, 1980	964,624p		n.c.
Maui County	number	April 1, 1980	761,964p		n.c.
Hawaii County	number	April 1, 1980	71,337p		n.c.
Kauai County	number	April 1, 1980	92,206p		n.c.
C & C OF HONOLULU	number	April 1, 1980	39,117p		n.c.
MAUI COUNTY	number	April 1, 1980	903,605p		n.c.
HAWAII COUNTY	number	April 1, 1980	61,019		5.4*
KAUAI COUNTY	number	April 1, 1980	48,813		8.7*
HONOLULU-MAUI	number	April 1, 1980	12,206		−5.8*
HONOLULU-KAUAI	number	April 1, 1980	64,023		−0.8*
MAUI-KAUAI	number	12 mo. total ending Oct. '80	5,674		−17.5
PERSONAL INCOME					
TOTAL PERSONAL INCOME	mil $	2nd Qtr. 1980	9,104	1.4	10.6
WAGE AND SALARY DISBURSEMENTS	mil $	2nd Qtr. 1980	7,051	0.6	8.9
OTHER LABOR INCOME	mil $	2nd Qtr. 1980	372	−5.8	0.8
PROPRIETORS' INCOME	mil $	2nd Qtr. 1980	560	2.2	14.3
FARM	mil $	2nd Qtr. 1980	335	1.5	15.1
NONFARM	mil $	2nd Qtr. 1980	825	−0.4	5.2
RENT, INTEREST, AND DIVIDENDS	mil $	2nd Qtr. 1980	566	−3.4	15.5
RENT	mil $	2nd Qtr. 1980	677	0.4	12.3
PERSONAL CONTRIBUTIONS FOR SOCIAL INSURANCE	mil $	2nd Qtr. 1980	1,454	2.0	12.4
LESS: PERSONAL CONTRIBUTIONS FOR SOCIAL INSURANCE	mil $	2nd Qtr. 1980	223	−1.8	−4.3
LESS: ADJUSTMENT FOR RESIDENCE	mil $	2nd Qtr. 1980	593	−1.3	1.4
EQUALS: NET EARNINGS BY PLACE OF RESIDENCE	mil $	2nd Qtr. 1980	627	1.1	7.7
PLUS: ADJUSTMENT FOR RESIDENCE	mil $	2nd Qtr. 1980	797	0.4	5.7
EQUALS: TOTAL PERSONAL INCOME	mil $	2nd Qtr. 1980	1,343	4.6	18.6
PLUS: TRANSFER PAYMENTS TO PERSONS	mil $	2nd Qtr. 1980	710	3.0	14.0
PER CAPITA PERSONAL INCOME					
U.S. PER CAPITA INCOME	dollars	1979	9,223		9.3
HONOLULU	dollars	1978	8,806		10.6
MAUI COUNTY	dollars	1978	7,676		10.3
HAWAII COUNTY	dollars	1978	6,687		9.2
KAUAI COUNTY	dollars	1978	7,044		10.0

n.c.=not comparable

*Compared to July 1, 1979

**Total personal income and all components are seasonally adjusted at annual rates.

[1]These immigration statistics include only those entering Honolulu ports and do not include status changes.

[2]Includes wage and salary disbursements, proprietors' income, and other labor income.

u.s. economic indicators

series	unit	period	number	percent change from preceding period	percent change year ago
GENERAL BUSINESS INDICATORS					
COMPOSITE INDEX OF 12 LEADING INDICATORS*	1967=100	August	130.5	1.7	−6.9
GROSS NATIONAL PRODUCT					
In Current Dollars	bil $	3rd Qtr. 1980	2,586.5r	2.6	7.9
In 1972 Dollars	bil $	3rd Qtr. 1980	1,411.7r	0.2	−1.5
PERSONAL INCOME	bil $	October	2,189.9	1.1	10.5
RETAIL SALES*	bil $	October	79,868	−0.1	5.7
INDUSTRIAL PRODUCTION	1967=100	September	142.4e	1.0	−6.7
BANKING AND CREDIT					
DEBITS TO DEMAND DEPOSITS*	bil $	September	39,008.0	0.8	16.9
TURNOVER OF DEMAND DEPOSITS*	annual rate	September	134.4	−0.2	14.1
BANK LOANS	bil $	August	864.8	1.2	5.0
AVERAGE PRIME RATE CHARGED BY BANKS	percent	October	13.79	12.8	−4.2
CONSUMER INSTALLMENT DEBT	bil $	August	303,263	0.5	1.2
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE**	bil $	September	222.0	3.2	−5.7
CONSTRUCTION COST INDEXES					
Residential	1967=100	July	270.8	0.4	3.6
Apts., Hotel, Office Bldgs.	1967=100	July	273.1	2.6	9.0
EMPLOYMENT					
CIVILIAN EMPLOYMENT*	thous	October	97,176	0.0	−0.3
UNEMPLOYMENT*	thous	October	8,005	2.3	30.8
UNEMPLOYMENT RATE*	percent	October	7.6	1.3	28.8
PRICES					
CONSUMER PRICE INDEX, All Items					
Urban Wage Earners and Clerical Workers, Revised	1967=100	October	254.1	0.9	12.6
All Urban Consumers	1967=100	October	253.9	0.9	12.6
PRODUCER PRICE INDEXES					
Finished Goods*	1967=100				
All Commodities	1967=100	October	251.9	0.8	12.5

e=estimated. r=revised. p=preliminary.

*Seasonally adjusted.

**Seasonally adjusted annual rate.

*Excludes one indicator series for which data are not yet available.

second quarter after an increase of 16.8% the quarter before. The 5.5% annual rate of increase fell far short of the 12.4% increase in inflation locally as measured by the Honolulu CPI. It was also way behind the 10.7% annual rate of inflation as measured by the GNP Price Deflator, generally regarded of late as a much better measure of inflation than the CPI.

Wages and salaries which comprise almost 70% of TPI rose a paltry 2.8% at an annual rate. Proprietor's income fell 17.3%. But the property component — dividends, interest, and rent — soared 19.7%, accounting for close to 50% of the total TPI increase in the second quarter. When the property component comprising about 15% of TPI is excluded, the annual rate of gain in personal income drops to 3.3%.

By industry, the only sector where employment income outpaced inflation was in finance, insurance, and real estate which registered a gain of 14.9%. The next most sizable industry gains were recorded in construction, up 9.1%, and services, up 8.4%. Manufacturing, on the other hand, plummeted 21.3% in the second quarter, a good part of which probably resulted from the month and a half long Teamster strike against Kaiser Cement, producer of about 40% of the state's cement production. A precipitous drop was also recorded for farm income, down 9.1% at an annual rate, in the aftermath of severe winter rainstorms.

Despite Hawaii's lousy second quarter personal income showing, 34 other states did even worse. The average gain for the quarter nationally was 4.3%.

First Hawaiian Bank Established 1858 Member FDIC

Economic Indicators

ISSN 0015-2757

A Monthly Report by the Research Division *Dr. Thomas K. Hitch, Senior Vice President* *Shurei Hirozawa, Vice President* *January 1981*

New Intensive Shrimp Culture in Hawaii

Aquaculture in Hawaii got a potentially big boost this past year when the University of Arizona decided to transfer its research field station for the study of controlled-environment growing of shrimp from Mexico to Kahuku. Research and development work had been conducted jointly with the University of Sonora since 1973, but a philosophical difference of opinion over methods of production caused the split, and resulted in the University of Arizona relocating its work to Hawaii.

This shrimp project comes under the University of Arizona's Environmental Research Laboratory (ERL), which is charged with the development of advanced technology for increasing food supplies, conserving energy, and enhancing the quality of life. ERL helps private industry and governments, both domestic and foreign, to apply the results of its findings. The work with shrimp has been a major project, funded by grants from Marine Culture Enterprises, a partnership of the Coca-Cola Co. and the F.H. Prince Co. This partnership will invest in a commercial operation if it proves feasible.

ERL's new field station at Kahuku began taking shape last April on 7.5 acres of Campbell Estate land. A lease is being negotiated for a larger tract. The first installation was completed in December and consisted of five aquacells, three of them 100 feet long and two of them 200 feet long. These aquacells have thin plastic roofs held up by a very light air pressure. The aquacells have double concrete raceways the length of the structure about 11 feet wide and four feet deep, except for one 100-foot aquacell that has three raceways. There are walkways between the raceways from which the shrimp are tended and fed. Plastic film is attached airtight to the outer walls of the aquacell and inflated so that it forms a rounded roof resembling a Quonset hut. The plastic film helps control levels of solar radiation, maintains water temperature, protects against weather as it is able to withstand winds of up to 60 miles an hour, and eliminates loss to predators as might be the case in open-pond culture.

Research in Mexico was conducted with three species of shrimp of which the blue Pacific variety grew most successfully. Growth is rapid in the beginning, then peaks. But they do keep on growing, and are harvested at the size demanded by the market.

The advantage of the controlled-environment method of culture is that it allows high stocking density. High-density culture is possible with shrimp, which unlike prawns do not cannibalize their own kind except for those on the verge of death. Production levels of around 65,000 pounds of shrimp tails per acre of water surface per year were achieved at ERL's Mexico station. This compares with annual harvests of from 2,000 to 2,500 pounds of prawns per acre in open-pond culture in Hawaii. This intensive culture adds a new dimension to aquaculture in Hawaii. Whether such high yields can be maintained in commercial-sized operations is still to be determined.

Despite seven years of research with the Pacific blue, commercial production is not yet being carried out at Kahuku. Some research records from Mexico were lost and certain studies must be repeated. Subsurface hydrology at Kahuku must be studied, experiments have to be completed, and the hatchery, feed mill, and processing plant must be designed. Marine Culture Enterprises also wants further studies done on feed, disease control, and three other shrimp species before large-scale production begins. The Kahuku staff has started studies on the Penaeus japonicus, a shrimp favored in Japan and more commonly known as the Kuruma shrimp, on a species found in the Philippines known as P. monodon, and on the white shrimp found in waters off South America, P. vanammi. Scientists want to see how these species will do in Hawaii under ERL's controlled-environment technique. The best will be produced commercially. The fairly warm and constant temperature of seawater here is a very important factor as shrimp don't grow fast in cold water.

One of the major problems in aquaculture is the creation of a whole spectrum of feeds, and ERL continues to work on better feeds even after having tested more than 1,000 formulas. Already its feed-to-meat conversion ratio is lower than for chicken (which is the lowest of all commercial food animals), but ERL feels it can lower it still more. Most of the feed ingredients will have to be imported from the Mainland, but the processing will be done here. The feeds are compressed and extruded in spaghetti-like strands and then cut into small pellets, which must sink but not dissolve. The object of the feed research is to formulate a feed that affords the best grow-out rate at the least cost.

The up-front investment for an environmentally controlled shrimp production facility is high, but Marine Culture Enterprises feels that the potentially tremendous yield will make it economical. The rising cost of energy will be in its favor because energy consumption is low compared with boat-based shrimp harvest. A few years ago, diesel oil used by a Gulf Coast shrimp boat represented only 16 percent of total operating costs; today, it is 68 percent and rising. The Kahuku project needs energy mainly for pumping, and renewable energy may some day supply most of this need.

Marine Culture Enterprises feels at home in Kahuku because of the warm reception it has received from the State and City-County governments, and the favorable atmosphere for aquaculture in Hawaii. Successful mass production is its major concern for it can call on Coca-Cola for its marketing expertise when that is needed. It is confident that commercial production will be successful, and that this technology some day will be exported to other tropical areas to increase food supplies worldwide.

First Hawaiian Bank

Established 1858 • Member of F.D.I.C.

business activity-hawaii

series	unit	period	number	percent change: from preceding period	percent change: year ago
TOURISM					
OVERNIGHT OR LONGER VISITORS	number	December	345,252p	12.2	0.1
	number	Jan.-Dec.	3,939,275p	.....	−0.5
Westbound	number	December	259,843p	11.4	−1.1
	number	Jan.-Dec.	3,052,409p	.....	−2.8
Eastbound	number	December	85,409p	14.6	4.1
	number	Jan.-Dec.	886,866p	.....	8.0
AVERAGE DAILY VISITOR CENSUS[1]	number	December	95,523p	13.5	−3.3
AVERAGE LENGTH OF STAY[1]	no. of days	December	10.5	5.0	−0.9
MEETINGS ATTENDANCE	number	Jan.-Nov.	225,229p	.....	29.2
ORGANIZED GROUP TOURS	number	December	47,632p	−9.6	−8.4
NEIGHBOR ISLAND VISITORS[1]					
Maui	number	December	107,094p	0.7	2.0
	number	Jan.-Dec.	1,379,529p	.....	−2.8
Hawaii	number	December	56,632p	6.3	−9.1
	number	Jan.-Dec.	762,716p	.....	−11.4
Kauai	number	December	58,104p	4.7	0
	number	Jan.-Dec.	783,164p	.....	−5.1
VISITOR ACCOMMODATIONS					
STATE	number	October	55,700	0.2	7.6
Oahu	number	October	34,173	−0.6	6.5
Waikiki	number	October	30,293	−0.7	7.6
Maui (includes 10 on Lanai)	number	October	9,963	0.4	10.1
Molokai	number	October	558	0.2	0.2
Hawaii	number	October	6,299	0.6	5.4
Kauai	number	October	4,707	6.1	14.6
HOTEL OCCUPANCY					
STATE	percent	December	62.4	−1.6	−1.4
Oahu	percent	December	68.7	−3.9	0.6
Maui	percent	December	59.9	6.4	−7.7
Hawaii	percent	December	45.7	−2.6	−7.9
Kauai	percent	December	60.7	−4.7	−2.7
DEFENSE EXPENDITURES					
APPROPRIATED FUNDS TOTAL	mil. $	3rd Qtr.	342.7	5.7	5.9
Military Payroll	mil. $	3rd Qtr.	131.7	−0.3	5.5
Civilian Payroll	mil. $	3rd Qtr.	113.6	19.4	10.4
Local Purchases	mil. $	3rd Qtr.	97.4	0.4	1.4
SUGAR					
SUGAR PRODUCTION	thous. tons	Jan.-Nov. 29	987,749	.....	−2.6
N.Y. RAW SUGAR PRICE	$ ton	November	787.15	−5.7	141.7
PINEAPPLE SHIPMENTS					
CANNED[2]	thous. $	March 1980-	n.a.	.....	.....
FRESH	thous. lbs	Jan.-Nov.	186,220	.....	7.5
HONOLULU PRICES					
HONOLULU CONSUMER PRICE INDEX					
Urban Wage Earners and Clerical Workers (Revised) All Items	1967=100	December[3]	237.0	1.5	10.0
All Urban Consumers All Items	1967=100	December[3]	236.1	0.6	9.9
PUBLIC UTILITIES					
ELECTRICITY GENERATED	mil. KWH	November	559.0	−5.2	2.9
GAS SALES	thous. therms	November	4,125	4.7	−1.4
TELEPHONES IN SERVICE	thous.	November	709.4	0.3	3.9

p=*preliminary.*
[1]*Estimated Westbound*
[2]*Gross taxable income valued at time of shipment.*
[3]*Compared to October 1980.*

Data Problems: Employment, Business Activity, Construction.

According to the Nov. 1980 job figures, there was a loss of a few hundred jobs between Nov. 1979 and Nov. 1980 — the first time the record shows this happening for any month since March 1962. A turn for the worse, you say? No, its not what it seems: the story the figures tell is simply illusory.

The Oct. and Nov. 1980 figures have been tagged to a new benchmark — the latest complete employer survey — and the earlier monthly data for the past few years aren't comparable. So what is the right story? Sorry, you'll have to wait until the feds impart their official

business activity-hawaii [cont.]

series	unit	period	number	percent change: from preceding period	percent change: year ago
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE	mil. $	March 1980-	n.a.	.....	.....
	mil. $	March 1980-	n.a.	.....	.....
PRIVATE PERMITS AUTHORIZED					
RESIDENTIAL					
STATE	thous. $	Jan.-July	313,012	.....	4.1
C&C of Honolulu	thous. $	Jan.-Nov.	271,826	.....	8.3
Maui County	thous. $	Jan.-July	77,338	.....	30.5
Hawaii County	thous. $	Jan.-Nov.	103,968	.....	21.1
Kauai County	thous. $	Jan.-Nov.	71,546	.....	−26.9
SINGLE FAMILY UNITS					
STATE	number	Jan.-July	2,394	.....	−32.1
C&C of Honolulu	number	Jan.-Nov.	1,403	.....	−48.4
Maui County	number	Jan.-July	477	.....	−22.6
Hawaii County	number	Jan.-Nov.	1,089	.....	−19.0
Kauai County	number	Jan.-Nov.	343	.....	−30.0
MULTIPLE FAMILY UNITS					
STATE	number	Jan.-July	2,820	.....	29.9
C&C of Honolulu	number	Jan.-Nov.	2,740	.....	89.2
Maui County	number	Jan.-July	809	.....	19.5
Hawaii County	number	Jan.-Nov.	739	.....	13.3
Kauai County	number	Jan.-Nov.	789	.....	−32.5
NONRESIDENTIAL					
STATE	thous. $	Jan.-July	233,219	.....	67.1
C&C of Honolulu	thous. $	Jan.-Nov.	232,234	.....	23.7
Maui County	thous. $	Jan.-July	32,912	.....	112.6
Hawaii County	thous. $	Jan.-Nov.	35,174	.....	90.6
Kauai County	thous. $	Jan.-Nov.	49,827	.....	279.8
PUBLIC CONTRACTS AWARDED					
TOTAL GOVERNMENT PROJECTS	thous. $	Jan.-Dec.	244,450	.....	−44.5
BY LEVEL OF GOVERNMENT					
FEDERAL	thous. $	Jan.-Dec.	65,123	.....	−37.3
STATE	thous. $	Jan.-Dec.	130,029	.....	−49.3
COUNTY	thous. $	Jan.-Dec.	49,298	.....	−38.6
BY LOCATION OF PROJECT					
C&C of Honolulu	thous. $	Jan.-Dec.	173,083	.....	−49.6
Maui County	thous. $	Jan.-Dec.	17,886	.....	−51.4
Hawaii County	thous. $	Jan.-Dec.	42,543	.....	−9.4
Kauai County	thous. $	Jan.-Dec.	10,938		
HONOLULU CONSTRUCTION COST INDEXES					
SINGLE FAMILY	1967=100	December	287.4p	−0.2	3.2
HIGH-RISE	1967=100	December	297.1p	−0.3	7.6
BUSINESS SALES					
GROSS BUSINESS RECEIPTS	mil. $	March 1980	n.a.	.....	.....
	mil. $				
DIVERSIFIED MANUFACTURING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
DIVERSIFIED AGRICULTURE	mil. $	March 1980	n.a.	.....	.....
	mil. $				
RETAILING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
WHOLESALING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
SERVICES	mil. $	March 1980	n.a.	.....	.....
	mil. $				
OAHU NEW CAR AND PASSENGER TRUCK SALES	number	November	2,793p	11.8	−21.5

n.a.=*not available.*

stamp of approval granting the Labor Dept. permission to release the revisions. When will that be? Oh, perhaps as early as May 1981.

Now that the proper tone has been set, we may as well continue in this vein, describing the problems encountered with some of Hawaii's other major data series last year — which, taken all together, make the job of analyzing Hawaii's economy a frustrating one.

Besides jobs, the only other series, in times past anyway, that afforded a good up-to-date picture of Hawaii's economic performance sector by sector was the business sales series. The figures for this series come from the State Dept. of Tax-

finance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
BANKING					
TOTAL BANK DEPOSITS					
STATE	mil. $	December 31	4,387.5	4.9	7.4
Honolulu County	mil. $	December 31	3,595.0	5.3	6.5
Maui County	mil. $	December 31	277.0	3.0	4.9
Hawaii County	mil. $	December 31	359.4	3.3	17.2
Kauai County	mil. $	December 31	156.0	2.7	11.8
BANK DEMAND DEPOSITS					
STATE	mil. $	December 31	1,319.1	9.9	−5.3
Honolulu County	mil. $	December 31	1,109.3	10.4	−5.3
Maui County	mil. $	December 31	82.6	6.4	−9.9
Hawaii County	mil. $	December 31	92.9	7.6	0.9
Kauai County	mil. $	December 31	34.3	7.5	−7.6
DEBITS TO DEMAND DEPOSITS					
STATE	mil. $	December	8,195.0	31.4	25.4
Honolulu County	mil. $	December	7,501.1	32.0	25.3
Maui County	mil. $	December	305.7	26.0	24.5
Hawaii County	mil. $	December	280.0	24.1	27.3
Kauai County	mil. $	December	108.3	29.8	29.3
TURNOVER OF DEMAND DEPOSITS					
STATE	annual rate	December	78.05	26.8	30.0
Honolulu County	annual rate	December	85.15	27.1	30.0
Maui County	annual rate	December	45.77	26.7	34.9
Hawaii County	annual rate	December	37.50	17.9	25.4
Kauai County	annual rate	December	39.28	24.0	36.4
TAX COLLECTIONS					
TAX COLLECTIONS—STATE	thous. $	November	83,582	−14.8	5.5
	thous. $	Jan.-Nov.	1,242,020	.....	11.1
Honolulu County	thous. $	November	73,071	−14.5	6.2
	thous. $	Jan.-Nov.	1,068,489	.....	11.1
Maui County	thous. $	November	4,317	−16.0	2.8
	thous. $	Jan.-Nov.	66,563	.....	10.6
Hawaii County	thous. $	November	4,544	−12.6	4.5
	thous. $	Jan.-Nov.	74,663	.....	9.8
Kauai County	thous. $	November	1,651	−27.4	−14.0
	thous. $	Jan.-Nov.	32,305	.....	15.3

employment and unemployment-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
STATE					
Civilian Labor Force	thous.	November	398.2p	0.8	n.c.
Employment	thous.	November	375.7p	0.8	n.c.
Unemployment	thous.	November	22.5p	0	n.c.
Unemployment Rate	percent	November	5.6p	−1.8	n.c.
C & C OF HONOLULU					
Civilian Labor Force	thous.	November	312.9p	1.1	n.c.
Employment	thous.	November	296.1p	1.2	n.c.
Unemployment	thous.	November	16.8p	0	n.c.
Unemployment Rate	percent	November	5.4p	0	n.c.
MAUI COUNTY					
Civilian Labor Force	thous.	November	32.4p	−1.4	n.c.
Employment	thous.	November	30.2p	−1.5	n.c.
Unemployment	thous.	November	2.2p	0	n.c.
Unemployment Rate	percent	November	6.7p	0	n.c.
HAWAII COUNTY					
Civilian Labor Force	thous.	November	35.5p	0.4	n.c.
Employment	thous.	November	32.8p	0.3	n.c.
Unemployment	thous.	November	2.6p	0	n.c.
Unemployment Rate	percent	November	7.4p	0	n.c.
KAUAI COUNTY					
Civilian Labor Force	thous.	November	17.6p	−0.6	n.c.
Employment	thous.	November	16.7p	−0.6	n.c.
Unemployment	thous.	November	0.9p	0	n.c.
Unemployment Rate	percent	November	5.1p	0	n.c.
JOB COUNT BY INDUSTRY					
TOTAL JOBS—STATE	thous.	November	446.2p	1.3	n.c.
SUGAR (mill and field)	thous.	November	9.1p	1.1	n.c.
PINEAPPLE (canning and field)	thous.	November	4.5p	18.4	n.c.
DIVERSIFIED MANUFACTURING					
(excluding sugar and pineapple but including agriculture self-employed)	thous.	November	16.1p	2.2	n.c.
CONSTRUCTION	thous.	November	4.5p	12.7	n.c.
TRANSPORTATION	thous.	November	11.6p	−1.3	n.c.
COMMUNICATION	thous.	November	3.0p	1.7	n.c.
UTILITIES					
DIVERSIFIED AGRICULTURE (excluding sugar and pineapple but including agriculture self-employed)	thous.	October 12-18[2]	9.0p	0	n.c.
CONTRACT CONSTRUCTION	thous.	November	22.6p	5.4	n.c.
TRANSPORTATION	thous.	November	21.0p	−0.5	n.c.
COMMUNICATION	thous.	November	7.2p	0	n.c.
UTILITIES	thous.	November	2.7p	0	n.c.
RETAIL TRADE	thous.	November	85.8p	1.5	n.c.
WHOLESALE TRADE	thous.	November	18.3p	−0.3	n.c.
FINANCE, INSURANCE AND REAL ESTATE	thous.	November	34.0p	1.6	n.c.
HOTEL SERVICES—STATE	thous.	November	25.0p	−0.8	n.c.
Honolulu County	thous.	November	15.6p	−2.5	n.c.
Maui County	thous.	November	4.4p	3.5	n.c.
Hawaii County	thous.	November	3.2p	0	n.c.
Kauai County	thous.	November	1.8p	0	n.c.
OTHER SERVICES	thous.	November	75.4p	0.7	n.c.
FEDERAL GOVERNMENT	thous.	November	30.0p	0.7	n.c.
Civilian Agencies	thous.	November	11.2p	0.5	n.c.
Defense Department	thous.	November	18.9p	0.8	n.c.
STATE GOVERNMENT	thous.	November	46.7p	4.5	n.c.
COUNTY GOVERNMENT	thous.	November	13.1p	0	n.c.
HOURS AND EARNINGS BY INDUSTRY					
CONTRACT CONSTRUCTION					
Average Hourly Earnings	dollars	November	12.36p	2.9	8.0
Average Weekly Hours	hours	November	32.6p	−6.6	4.2
MANUFACTURING					
Average Hourly Earnings	dollars	November	7.30p	7.4	10.1
Average Weekly Hours	hours	November	38.3p	−5.7	−1.0
COMMUNICATION AND UTILITIES					
Average Hourly Earnings	dollars	November	9.80p	3.4	13.4
Average Weekly Hours	hours	November	45.0p	0	1.4
TRADE					
Average Hourly Earnings	dollars	November	5.65p	−3.3	7.2
Average Weekly Hours	hours	November	33.1p	0.3	−0.3
FINANCE					
Average Weekly Earnings	dollars	November	199.34p	9.9	15.5
HOTELS					
Average Hourly Earnings	dollars	November	5.56p	0.5	6.1
Average Weekly Hours	hours	November	30.5p	2.0	−2.2
HIRED FARM WORKERS[3]					
Average Hourly Earnings	dollars	October	5.83	6.4	10.8
Average Weekly Hours	hours	October	39.0	4.3	2.4

n.c.=not comparable
p=preliminary
[1]Series includes agricultural employment during October survey week.
[2]Agricultural jobs are included in the total job count even though the period differs. Agricultural employment is surveyed only four times a year, in January, April, July, and October. These dates also apply to the field portions of sugar and pineapple jobs.
[3]Includes some office and supervisory workers.

public assistance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
INSURED UNEMPLOYMENT (weekly average)	number	November	11,744	−14.7	−21.3
INTRASTATE INITIAL CLAIMS	number	November	4,257	−19.5	−52.6
INTERSTATE INITIAL CLAIMS	number	November	390	−16.8	−3.0
UNEMPLOYMENT INSURANCE BENEFITS	thous. $	November	4,267	−18.3	25.4
PUBLIC ASSISTANCE					
RECIPIENTS[1]					
Income Maintenance	no. persons	October	71,732	1.0	2.8
Services	no. cases	3rd Qtr. 1980	13,320	3.4	−1.2
Medical	no. patients	October	57,454	15.5	21.9
Food Stamps	no. persons	October	106,740	0.4	13.0
PAYMENTS					
Income Maintenance	thous. $	October	9,706	3.1	7.1
Services	thous. $	3rd Qtr. 1980	4,356	−0.7	3.1
Medical	thous. $	October	11,636	32.8	36.5
Food Stamps	thous. $	October	5,236	1.0	20.4

[1]Count of recipients is duplicated. A person may be counted in each category.

population, personal income-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
POPULATION					
DE FACTO—STATE	number	April 1, 1980	1,056,500p	.....	n.c.
TOTAL RESIDENT—STATE	number	April 1, 1980	964,680r	.....	n.c.
C. & C. of Honolulu	number	April 1, 1980	762,020r	.....	n.c.
Maui County	number	April 1, 1980	71,337p	.....	n.c.
Hawaii County	number	April 1, 1980	92,206p	.....	n.c.
Kauai County	number	April 1, 1980	39,117p	.....	n.c.
CIVILIAN RESIDENT—STATE	number	April 1, 1980	903,605p	.....	n.c.
MILITARY PERSONNEL—STATE	number	April 1, 1980	61,019	.....	5.4*
Ashore	number	April 1, 1980	48,813	.....	8.7*
Afloat	number	April 1, 1980	12,206	.....	−5.8*
CIVILIAN DEPENDENTS OF MILITARY	number	April 1, 1980	64,023	.....	−0.8*
FOREIGN IMMIGRATION[1]	number	12 mo. total ending Nov. '80	5,784	.....	−15.0
PERSONAL INCOME					
TOTAL PERSONAL INCOME**	mil. $	2nd Qtr. 1980	9,104	1.4	10.6
Employment Income[2]	mil. $	2nd Qtr. 1980	7,051	0.6	8.9
Manufacturing	mil. $	2nd Qtr. 1980	372	−5.8	0.8
Construction	mil. $	2nd Qtr. 1980	560	2.2	14.3
Wholesale	mil. $	2nd Qtr. 1980	335	1.5	15.1
Retail	mil. $	2nd Qtr. 1980	825	−0.4	5.2
Finance, Ins. & Real Estate	mil. $	2nd Qtr. 1980	566	−3.4	15.5
Trans., Comm. & Util.	mil. $	2nd Qtr. 1980	677	0.4	12.3
Services	mil. $	2nd Qtr. 1980	1,454	2.0	12.4
Farm & Other	mil. $	2nd Qtr. 1980	223	−1.8	−4.3
Federal Civilian	mil. $	2nd Qtr. 1980	593	−1.3	1.4
Federal Military	mil. $	2nd Qtr. 1980	627	1.1	7.7
State & Local	mil. $	2nd Qtr. 1980	797	0.4	5.7
Property Income (Dividends, Interest, Rent)	mil. $	2nd Qtr. 1980	1,343	4.6	18.6
Transfer Payments (1,136) minus Personal Contributions For Social Ins. (426)	mil. $	2nd Qtr. 1980	710	3.0	14.0
PER CAPITA PERSONAL INCOME					
STATE PER CAPITA	dollars	1979	9,223	.....	9.3
PER CAPITA BY COUNTY					
C. & C. of Honolulu	dollars	1978	8,806	.....	10.6
Maui County	dollars	1978	7,676	.....	10.3
Hawaii County	dollars	1978	6,687	.....	9.2
Kauai County	dollars	1978	7,044	.....	10.0

n.c.=not comparable
*Compared to July 1, 1979.
**Total personal income and all components are seasonally adjusted at annual rates.
[1]These immigration statistics include only those entering Honolulu ports and do not include status changes.
[2]Includes wage and salary disbursements, proprietors' income, and other labor income.

u.s. economic indicators

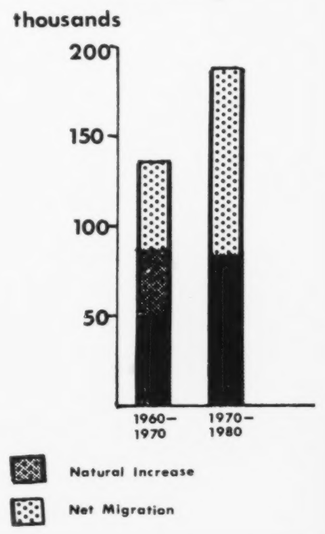
series	unit	period	number	percent change from preceding period	percent change year ago
GENERAL BUSINESS INDICATORS					
COMPOSITE INDEX OF 12 LEADING INDICATORS**	1967=100	October	136.0	0.7	−0.7
GROSS NATIONAL PRODUCT**					
In Current Dollars	bil. $	3rd Qtr. 1980	2,586.5	2.6	7.9
In 1972 Dollars	bil. $	3rd Qtr. 1980	1,411.7	0.2	−1.5
PERSONAL INCOME**	bil. $	November	2,257.4p	1.1	11.1
RETAIL SALES*	bil. $	November	81,826p	1.6	7.1
INDUSTRIAL PRODUCTION*	1967=100	November	148.5e	1.4	−2.5
BANKING AND CREDIT					
DEBITS TO DEMAND DEPOSITS**	bil. $	October	39,611.4	1.5	18.3
TURNOVER OF DEMAND DEPOSITS**	annual rate	October	135.0	0.4	13.7
BANK LOANS*	bil. $	September	1,204.5e	1.1	6.7
AVERAGE PRIME RATE CHARGED BY BANKS	percent	November	16.06	16.5	3.3
CONSUMER INSTALLMENT DEBT*	mil. $	September	300,209	1.0	0.5
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE**	bil. $	November	231.8	2.5	−3.2
CONSTRUCTION COST INDEXES					
Residences	1967=100	July	270.8	0.4	3.6
Apts., Hotel, Office Bldgs.	1967=100	July	273.1	2.6	9.0
EMPLOYMENT					
CIVILIAN EMPLOYMENT*	thous.	November	97,396	0.2	−0.2
UNEMPLOYMENT*	thous.	November	7,924	−1.0	32.0
UNEMPLOYMENT RATE*	percent	November	7.5	−1.3	29.3
PRICES					
CONSUMER PRICE INDEX (All Items)					
Urban Wage Earners and Clerical Workers (Revised)	1967=100	December	258.7	0.9	12.5
All Urban Consumers	1967=100	December	258.4	0.9	12.4
PRODUCER PRICE INDEXES					
Finished Goods*	1967=100	November	253.5	0.6	11.9
All Commodities	1967=100	November	278.4	0.5	12.6

e=estimated. *Seasonally adjusted.
r=revised. **Seasonally adjusted annual rate.
p=preliminary.
[1]Excludes one indicator series for which data are not yet available.

Population

The 1980 census pegged Hawaii's resident population at 964,624, an increase of 194,711 or 25.3% over the decade. Virtually all of the change — 96% — occurred as a result of increases in the civilian population (excludes military personnel and their dependents). Military additions accounted for only 4% of Hawaii's total population increase. The 194,711 increase for the '70s was 42% greater than that experienced during the '60s. All the credit for the bigger increase in civilian population during the '70s goes to the migration component. A much greater net migration flow resulted in raising Hawaii's civilian population by 100,864 during the decade, almost twice the increase experienced during the previous decade, contributing 54% of the change in civilian population. On the other hand, the natural increase (the excess of births over deaths) of 83,074 was little changed from the 83,810 recorded during the '60s, reflecting a substantially lower civilian birth rate. The natural increase accounted for only 45% of the civilian population change during the '70s contrasted with 63% during the '60s.

NET CHANGE IN CIVILIAN POPULATION—HAWAII



First Hawaiian Bank Established 1858 Member FDIC

Economic Indicators

ISSN 0015-2757

A Monthly Report by the Research Division *Dr. Thomas K. Hitch, Senior Vice President* *Shurei Hirozawa, Vice President* *February 1981*

Hawaii's Developing Fishing Industry

Commercial fishing in Hawaii has the potential to become a much larger enterprise, but little progress has been made in the past 50 years. Now, however, with the help of federal aid, the State is gearing up for action, and there is the hope of steady expansion for the industry in the years just ahead.

Despite abundant resources, Hawaii's fish catch has remained virtually unchanged over the years. The National Marine Fisheries Service statistics for Hawaii go back to 1928, when island fishermen landed 11.7 million pounds of fish. In 1978 (the latest year for which figures are available), the catch was 12.8 million pounds, with revenues of $12.2 million.

The State decided a few years ago that the commercial fishing industry should be expanded to help diversify Hawaii's economic base, and in 1978 the Legislature appropriated $150,000 for a comprehensive study. The result was the Department of Land and Natural Resources' Fisheries Development Plan covering the next two decades. The study found substantial resources in the waters around the Leeward Islands and stretching beyond the 200-mile Fisheries Conservation Zone. To tap these resources for local consumption and export, modern long-range vessels must be built, and in addition more dock space, infrastructure to service the expanded activity, reliable supplies of hardy baitfish, financing, marketing services, new technology, and continued research must be provided.

Despite high development costs, the rewards are expected to more than match the investment. Today, Hawaii must import two-thirds of the 30 million pounds of seafood it consumes annually. The study estimates that the catch by 1990 could be 50 million pounds above the estimated 1979 catch of 16.5 million pounds, and a conservative $30 million above the $17 million that fishermen got in 1979. Revenues to fishermen will not grow proportionately with increased catches because the excess that cannot be marketed fresh will have to be sold at lower prices for canning or processing in other ways. The new modern vessels will compensate for lower per unit returns with larger catches and increased productivity.

Direct employment in the industry, including processing, is expected to double by 1990 to around 2,400, and indirect and induced employment could add still more jobs.

Most of the resources are to be found in the Hawaiian region, defined as the oceans 1,500 miles from Honolulu, mostly westward beyond Midway Island and into the North Pacific and south to the equator. The biggest potential lies in tuna—aku and ahi (albacore, yellowfin and bigeye)—which is plentiful in Hawaiian waters from the North Pacific to the equator. Bottomfish, akule, opelu, Kona crab, lobster, and deepsea shrimp are found mainly around the Leeward Islands. Based on 1978 landings, island-based fishermen harvested 50 percent of the potential sustainable yield of yellowfin tuna in the Hawaiian region, 42 percent of inshore bottomfish, 32 percent of akule, 25 percent of aku, and 20 percent of opelu, but only 3 percent each of albacore and bigeye tuna, 3.5 percent of lobster, almost none of deepsea shrimp, and none of the abundant groundfish in the western seamount area. The lobster catch is increasing, however, and some are exported.

Aku is by far Hawaii's major catch, having made up about 60 percent of annual landings in past years. But productivity is low, and the local industry needs larger vessels, new technology, and above all else, good supplies of hardy baitfish. The State has had a loan program for vessel purchases, and it is asking the legislature for $2 million a year for the next two years. The State is also financing the development of new baitfish, and results look promising so far.

Last year 17 new vessels were added to the fishing fleet, bringing the total to 80, of which 55 are long-range craft. Of the latter, eight are homeported in Honolulu while the remaining 47 are transients from the West Coast that stay in Hawaii for the fishing season.

Dock space to accommodate the growing fleet has been a problem, and the State is seeking answers to eliminate this barrier to expansion. Last year it installed power and water lines to Pier 35 so that transient vessels of the albacore fleet could use the pier. The State is seeking funds to build a new Pier 16 and to renovate Pier 37 to further expand dock space. It also plans to improve Kewalo Basin and its shoreside facilities.

Further requirements are expanded ice-making capacity, more cold storage space, fuel depots for the fleet on the major islands, marine repair facilities, and drydock space. The lone tuna cannery will have to be expanded or a larger new plant built if the increasing supply of fish is to be processed locally. The State is also looking for land for a seafood industrial park near the harbor to consolidate many of the service activities for the industry. But land is scarce.

The infrastructure must be expanded because substantially larger supplies of highly perishable food will have to be handled and processed very soon. Flash freezing (very quick freezing) which maintains quality for extended periods appears to be one answer. Some island lobster is being processed this way as are varieties of fish, including sashimi-grade fish. This process, if successful, will even out distribution throughout the year and stabilize market supply and prices.

Although many problems are yet to be resolved, the future does look more promising for this industry than it has in recent decades.

First Hawaiian Bank
Established 1858 • Member of F.D.I.C.

business activity - hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
TOURISM					
OVERNIGHT OR LONGER VISITORS	number	December	345,252p	12.2	0.1
	number	Jan.-Dec.	3,939,275p	.....	−0.5
Westbound	number	December	259,843p	11.4	−1.1
	number	Jan.-Dec.	3,052,409p	.....	−2.8
Eastbound	number	December	85,409p	14.6	4.1
	number	Jan.-Dec.	886,866p	.....	8.0
AVERAGE DAILY VISITOR CENSUS[1]	number	December	95,523p	13.5	−3.3
AVERAGE LENGTH OF STAY[1]	no. of days	December	10.5	5.0	−0.9
MEETINGS ATTENDANCE	number	Jan.-Dec.	230,891	.....	23.6
ORGANIZED GROUP TOURS	number	December	47,632p	−9.6	−8.4
NEIGHBOR ISLAND VISITORS[1]					
Maui	number	December	107,094p	0.7	2.0
	number	Jan.-Dec.	1,379,529p	.....	−2.8
Hawaii	number	December	56,632p	6.3	−9.1
	number	Jan.-Dec.	762,716p	.....	−11.4
Kauai	number	December	58,104p	4.7	0
	number	Jan.-Dec.	783,164p	.....	−5.1
VISITOR ACCOMMODATIONS					
STATE	number	October	55,700	0.2	7.6
Oahu	number	October	34,173	−0.6	6.5
Waikiki	number	October	30,293	−0.7	7.6
Maui (includes 10 on Lanai)	number	October	9,963	0.4	10.1
Molokai	number	October	558	0.2	0.2
Hawaii	number	October	6,299	0.6	5.4
Kauai	number	October	4,707	6.1	14.6
HOTEL OCCUPANCY					
STATE	percent	December	62.4	−1.6	−1.4
Oahu	percent	December	68.7	−3.9	0.6
Maui	percent	December	59.9	6.4	−7.7
Hawaii	percent	December	45.7	−2.6	−7.9
Kauai	percent	December	60.7	−4.7	−2.7
DEFENSE EXPENDITURES					
APPROPRIATED FUNDS TOTAL	mil. $	3rd Qtr.	342.7	5.7	5.9
Military Payroll	mil. $	3rd Qtr.	131.7	−0.3	5.5
Civilian Payroll	mil. $	3rd Qtr.	113.6	19.4	10.4
Local Purchases	mil. $	3rd Qtr.	97.4	0.4	1.4
SUGAR					
SUGAR PRODUCTION	thous. tons	Jan.-Dec. 31	1,023,231	.....	−3.4
N. Y. RAW SUGAR PRICE	$/ton	December	607.68	−22.8	65.7
PINEAPPLE SHIPMENTS					
CANNED[2]	thous. $	March 1980-	n.a.	.....	.....
FRESH	thous. lbs.	Jan.-Dec.	199,988	.....	8.2
HONOLULU PRICES					
HONOLULU CONSUMER PRICE INDEX					
Urban Wage Earners and Clerical Workers (Revised), All items	1967=100	December[3]	237.0	1.5	10.0
All Urban Consumers, All items	1967=100	December[3]	236.1	0.6	9.9
PUBLIC UTILITIES					
ELECTRICITY GENERATED	mil. KWH	December	569.5	1.9	1.2
GAS SALES	thous. therms	December	4,151	0.6	−1.7
TELEPHONES IN SERVICE	thous.	December	712.1	0.4	4.0

p=*preliminary.*
[1]*Estimated Westbound*
[2]*Gross taxable income valued at time of shipment.*
[3]*Compared to October 1980.*

Construction

Oahu's construction industry got a shot in the arm during the closing months of 1980, just before the Administrative changeover at City Hall, when an unprecedented level of private projects was granted permit approval. For the year through October, the County authorized $428 million in permits for private construction, 7.3% more than during the same period the year before, and a decline in real terms of 2.6% after the 10% inflationary factor for construction is taken into account. But with the pace of approvals stepped up 3-fold in Nov.-Dec. relative to what happened earlier in the year, an additional $256 million of private approvals was ob-

business activity-hawaii [cont.]

series	unit	period	number	percent change from preceding period	percent change year ago
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE	mil. $	March 1980-	n.a.	.....	.....
	mil. $	March 1980-	n.a.	.....	.....
PRIVATE PERMITS AUTHORIZED					
RESIDENTIAL					
STATE	thous. $	Jan.-Aug.	457,946	.....	25.3
C&C of Honolulu	thous. $	Jan.-Dec.	338,259	.....	17.1
Maui County	thous. $	Jan.-Aug.	146,833	.....	131.3
Hawaii County	thous. $	Jan.-Dec.	108,360	.....	17.9
Kauai County	thous. $	Jan.-Dec.	74,795	.....	−25.2
SINGLE FAMILY UNITS					
STATE	number	Jan.-Aug.	2,688	.....	−33.8
C&C of Honolulu	number	Jan.-Dec.	1,599	.....	−47.1
Maui County	number	Jan.-Aug.	572	.....	−19.1
Hawaii County	number	Jan.-Dec.	1,192	.....	−16.6
Kauai County	number	Jan.-Dec.	377	.....	−26.4
MULTIPLE FAMILY UNITS					
STATE	number	Jan.-Aug.	4,146	.....	46.1
C&C of Honolulu	number	Jan.-Dec.	3,343	.....	72.5
Maui County	number	Jan.-Aug.	1,296	.....	90.0
Hawaii County	number	Jan.-Dec.	739	.....	0.7
Kauai County	number	Jan.-Dec.	793	.....	−32.2
NONRESIDENTIAL					
STATE	thous. $	Jan.-Aug.	250,506	.....	47.8
C&C of Honolulu	thous. $	Jan.-Dec.	346,217	.....	59.4
Maui County	thous. $	Jan.-Aug.	33,423	.....	89.8
Hawaii County	thous. $	Jan.-Dec.	37,598	.....	83.0
Kauai County	thous. $	Jan.-Dec.	58,209	.....	319.5
PUBLIC CONTRACTS AWARDED					
TOTAL GOVERNMENT PROJECTS	thous. $	January	16,697	.....	78.1
BY LEVEL OF GOVERNMENT					
FEDERAL	thous. $	January	8,581	.....	274.6
STATE	thous. $	January	6,384	.....	271.7
COUNTY	thous. $	January	1,731	.....	−67.7
BY LOCATION OF PROJECT					
C&C of Honolulu	thous. $	January	9,824	.....	25.7
Maui County	thous. $	January	42	.....	587.8
Hawaii County	thous. $	January	1,172	.....	−17.9
Kauai County	thous. $	January	5,659	.....	4,310.0
HONOLULU CONSTRUCTION COST INDEXES					
SINGLE FAMILY	1967=100	January	286.4p	−0.3	1.6
HIGH-RISE	1967=100	January	297.5p	0.1	6.4
BUSINESS SALES					
GROSS BUSINESS RECEIPTS	mil. $	March 1980	n.a.	.....	.....
	mil. $				
DIVERSIFIED MANUFACTURING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
DIVERSIFIED AGRICULTURE	mil. $	March 1980	n.a.	.....	.....
	mil. $				
RETAILING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
WHOLESALING	mil. $	March 1980	n.a.	.....	.....
	mil. $				
SERVICES	mil. $	March 1980	n.a.	.....	.....
	mil. $				
OAHU NEW CAR AND PASSENGER TRUCK SALES	number	December	2,609	−7.9	−24.5

n.a.=*not available.*

tained, bringing the total for the year to $684.5 million, an impressive gain of 35.3% and 23% in real terms. Of course, just how much of this actually gets put in place is another matter, in light of our troubled economic and financial times.

Despite the record high interest rates, the Neighbor Islands also chalked up impressive gains last year in authorizations for new construction. Total authorizations advanced 31% (19.5% in real terms) from $404.8 mil. to $530.7 mil. (Maui included only through Aug. for both years). Private permits soared 49.4% to $459.3 mil., while public contracts plummeted 26.6%.

Throughout the state, the strong building sectors last year were in multi-

finance - hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
BANKING					
TOTAL BANK DEPOSITS					
STATE	mil $	December 31	4,387.5	4.9	7.4
Honolulu County	mil $	December 31	3,595.0	5.3	6.5
Maui County	mil $	December 31	277.0	3.0	4.9
Hawaii County	mil $	December 31	359.4	3.3	17.2
Kauai County	mil $	December 31	156.0	2.7	11.8
BANK DEMAND DEPOSITS					
STATE	mil $	December 31	1,319.1	9.9	-5.3
Honolulu County	mil $	December 31	1,109.3	10.4	-5.3
Maui County	mil $	December 31	82.6	6.4	-9.9
Hawaii County	mil $	December 31	92.9	7.6	0.9
Kauai County	mil $	December 31	34.3	7.5	-7.6
DEBITS TO DEMAND DEPOSITS					
STATE	mil $	December	8,195.0	31.4	25.4
Honolulu County	mil $	December	7,501.1	32.0	25.3
Maui County	mil $	December	305.7	26.0	24.5
Hawaii County	mil $	December	280.0	24.1	27.3
Kauai County	mil $	December	108.3	29.8	29.3
TURNOVER OF DEMAND DEPOSITS					
STATE	annual rate	December	78.05	26.8	30.0
Honolulu County	annual rate	December	85.15	27.1	30.0
Maui County	annual rate	December	45.77	26.7	34.9
Hawaii County	annual rate	December	37.50	17.9	25.4
Kauai County	annual rate	December	39.28	24.0	36.4
TAX COLLECTIONS					
TAX COLLECTIONS—STATE	thous $	December	94,624	13.2	17.7
	thous $	Jan.-Dec.	1,336,829	.....	11.6
Honolulu County	thous $	December	81,246	11.2	17.4
	thous $	Jan.-Dec.	1,149,145	.....	11.6
Maui County	thous $	December	4,681	8.4	-0.5
	thous $	Jan.-Dec.	71,261	.....	9.8
Hawaii County	thous $	December	6,227	37.0	36.0
	thous $	Jan.-Dec.	80,900	.....	11.5
Kauai County	thous $	December	2,741	66.0	41.8
	thous $	Jan.-Dec.	34,789	.....	16.1

family private residentia and private nonresidentia construction. Multi-family permits rose 36.4% from 4,523 to 6,171 units and the value of nonresidential permits soared 61% after adjustment for inflation. The single-family sector on the other hand, dropped precipitously on all islands. In aggregate, permits for 3,760 single-family units were issued 34% fewer than the year before. And the value of government contracts dropped 44.5%, 50% in real Terms.

employment and unemployment-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
STATE					
Civilian Labor Force	thous	December	399.9p	0.4	n.c.
Employment	thous	December	379.7p	1.1	n.c.
Unemployment	thous	December	20.2p	-10.2	n.c.
Unemployment Rate	percent	December	5.0p	-10.7	n.c.
C & C OF HONOLULU					
Civilian Labor Force	thous	December	314.1p	0.4	n.c.
Employment	thous	December	299.3p	1.1	n.c.
Unemployment	thous	December	14.8p	-12.2	n.c.
Unemployment Rate	percent	December	4.7p	-13.0	n.c.
MAUI COUNTY					
Civilian Labor Force	thous	December	32.1p	-0.9	n.c.
Employment	thous	December	30.0p	-0.8	n.c.
Unemployment	thous	December	2.2p	-2.3	n.c.
Unemployment Rate	percent	December	6.7p	0	n.c.
HAWAII COUNTY					
Civilian Labor Force	thous	December	36.2p	2.0	n.c.
Employment	thous	December	33.7p	2.7	n.c.
Unemployment	thous	December	2.4p	-7.7	n.c.
Unemployment Rate	percent	December	6.7p	-9.5	n.c.
KAUAI COUNTY					
Civilian Labor Force	thous	December	17.6p	0.3	n.c.
Employment	thous	December	16.7p	0.3	n.c.
Unemployment	thous	December	0.9p	0	n.c.
Unemployment Rate	percent	December	5.1p	0	n.c.
JOB COUNT BY INDUSTRY					
TOTAL JOBS STATE[2]	thous	December	448.4p	0.7	n.c.
SUGAR (mill and field)	thous	December	9.3p	2.2	n.c.
PINEAPPLE (cannery and field)	thous	December	4.1p	-10.0	n.c.
DIVERSIFIED MANUFACTURING (excluding sugar and pineapple)	thous	December	16.3p	1.2	n.c.
Durable Goods	thous	December	4.4p	-1.1	n.c.
Non Durable Goods	thous	December	11.9p	2.2	n.c.
Apparel and Textiles	thous	December	3.0p	0	n.c.
DIVERSIFIED AGRICULTURE (excluding sugar and pineapple but including agricultural self-employed)	thous	October 12-18[2]	9.0p	0	n.c.
CONTRACT CONSTRUCTION	thous	December	24.5p	0.8	n.c.
TRANSPORTATION	thous	December	21.1p	0.5	n.c.
COMMUNICATION	thous	December	7.2p	0.7	n.c.
UTILITIES	thous	December	2.7p	0	n.c.
RETAIL TRADE	thous	December	87.4p	1.9	n.c.
WHOLESALE TRADE	thous	December	18.3p	-0.5	n.c.
FINANCE, INSURANCE AND REAL ESTATE	thous	December	33.7p	0	n.c.
HOTEL SERVICES-STATE	thous	December	24.8p	-1.0	n.c.
Honolulu County	thous	December	15.5p	-1.0	n.c.
Maui County	thous	December	4.3p	-3.4	n.c.
Hawaii County	thous	December	3.3p	0	n.c.
Kauai County	thous	December	1.8p	0	n.c.
OTHER SERVICES	thous	December	75.5p	0.7	n.c.
FEDERAL GOVERNMENT	thous	December	30.0p	0.2	n.c.
Civilian Agencies	thous	December	11.2p	0.4	n.c.
Defense Department	thous	December	18.8p	0	n.c.
STATE GOVERNMENT	thous	December	47.4p	1.4	n.c.
COUNTY GOVERNMENT	thous	December	13.2p	0.8	n.c.
HOURS AND EARNINGS BY INDUSTRY					
CONTRACT CONSTRUCTION					
Average Hourly Earnings	dollars	December	12.46p	0.8	9.8
Average Weekly Hours	hours	December	38.3p	17.5	1.6
MANUFACTURING					
Average Hourly Earnings	dollars	December	7.10p	-2.7	7.3
Average Weekly Hours	hours	December	40.7p	6.3	2.0
COMMUNICATION AND UTILITIES					
Average Hourly Earnings	dollars	December	9.82p	0.2	10.7
Average Weekly Hours	hours	December	45.0p	0	2.5
TRADE					
Average Hourly Earnings	dollars	December	5.66p	0.2	6.8
Average Weekly Hours	hours	December	33.6p	1.5	-1.2
FINANCE					
Average Weekly Earnings	dollars	December	192.43p	-3.5	3.5
HOTELS					
Average Hourly Earnings	dollars	December	5.59p	0.5	2.6
Average Weekly Hours	hours	December	29.3p	-3.9	-3.0
HIRED FARM WORKERS[3]					
Average Hourly Earnings	dollars	October	5.83	6.4	10.8
Average Weekly Hours	hours	October	39.0	4.3	2.4

n.c. = *not comparable*
p = *preliminary*
[1] *Series includes agricultural employment during October survey week.*
[2] *Agricultural jobs are included in the total job count even though the period differs. Agricultural employment is surveyed only four times a year, in January, April, July, and October. These dates also apply to the field portions of sugar and pineapple jobs.*
[3] *Includes some office and supervisory workers.*

Demand Deposits

State demand deposits in November were 1.5% lower than one year earlier, and in December the year-ago comparison showed a 5.3% decline. The reason for the decline is the introduction of NOW accounts -- interest-bearing checking accounts -- that banks and s&ls were authorized to begin offering Jan. 1, and that are classified as time deposits. The conversion from one type of account to another got started a few months earlier as financial institutions embarked on aggressive promotional campaigns to line up customers early. The result was a pickup at banks in the opening of automatic transfer accounts (from savings to checking), the customer's intent being to convert to NOW status at the beginning of the year.

Personal Income

Hawaii's total personal income (TPI) rebounded handsomely in the 3rd quarter of last year following the lifting of federal credit controls. The 14.7% annual rate of

First

public assistance-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
INSURED UNEMPLOYMENT (weekly average)	number	December	13,972	19.0	36.4
INTRASTATE INITIAL CLAIMS	number	December	5,658	32.9	28.0
INTERSTATE INITIAL CLAIMS	number	December	386	-1.0	-2.5
UNEMPLOYMENT INSURANCE BENEFITS	thous. $	December	5,219	22.2	74.6
PUBLIC ASSISTANCE					
RECIPIENTS[1]					
Income Maintenance	no. persons	December	71,622	0.9	1.2
Services	no. cases	4th Qtr. 1980	12,454	-6.5	-9.5
Medical	no. patients	December	49,554	1.3	2.3
Food Stamps	no. persons	December	102,213	-0.4	1.6
PAYMENTS					
Income Maintenance	thous. $	December	9,524	1.5	3.6
Services	thous. $	4th Qtr. 1980	n.a.	.....	.....
Medical	thous. $	December	8,742	-7.9	4.9
Food Stamps	thous. $	December	4,923	0.2	4.5

[1]*Count of recipients is duplicated. A person may be counted in each category.*

population, personal income-hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
POPULATION					
DE FACTO—STATE	number	April 1, 1980	1,056,500p	.....	n.c.
TOTAL RESIDENT—STATE	number	April 1, 1980	964,680 r	.....	n.c.
C & C of Honolulu	number	April 1, 1980	762,020 r	.....	n.c.
Maui County	number	April 1, 1980	71,337p	.....	n.c.
Hawaii County	number	April 1, 1980	92,206p	.....	n.c.
Kauai County	number	April 1, 1980	39,117p	.....	n.c.
CIVILIAN RESIDENT—STATE	number	April 1, 1980	903,605p	.....	n.c.
MILITARY PERSONNEL—STATE	number	April 1, 1980	61,019	.....	5.4*
Ashore	number	April 1, 1980	48,813	.....	8.7*
Afloat	number	April 1, 1980	12,206	.....	-5.8*
CIVILIAN DEPENDENTS OF MILITARY	number	April 1, 1980	64,023	.....	-0.8*
FOREIGN IMMIGRATION[1]	number	12 mo. total ending Dec. '80	5,992	.....	-9.0
PERSONAL INCOME					
TOTAL PERSONAL NCOME**	mil. $	3rd Qtr. 1980	9,421	3.5	11.4
Employment Income[2]	mil. $	3rd Qtr. 1980	7,215	2.3	9.2
Manufacturing	mil. $	3rd Qtr. 1980	395	6.2	9.4
Construction & Mining	mil. $	3rd Qtr. 1980	520	-7.5	0.8
Wholesale	mil. $	3rd Qtr. 1980	340	1.5	13.0
Retail	mil. $	3rd Qtr. 1980	852	3.3	7.6
Finance, Ins. & Real Estate	mil. $	3rd Qtr. 1980	612	4.4	19.8
Trans., Comm., & Util.	mil. $	3rd Qtr. 1980	687	1.5	7.8
Services	mil. $	3rd Qtr. 1980	1,498	3.0	12.5
Farm & Other	mil. $	3rd Qtr. 1980	224	0.4	-1.8
Federal Civilian	mil. $	3rd Qtr. 1980	642	8.3	10.9
Federal Military	mil. $	3rd Qtr. 1980	638	1.8	8.9
State & Local	mil. $	3rd Qtr. 1980	807	1.3	5.4
Property Income (Dividends, Interest, Rent)	mil. $	3rd Qtr. 1980	1,381	2.8	18.3
Transfer Payments (1,220) minus Personal Contributions For Social Ins. (432)	mil. $	3rd Qtr. 1980	825	16.2	21.1
PER CAPITA PERSONAL INCOME					
STATE PER CAPITA	dollars	1979	9,223	.....	9.3
PER CAPITA BY COUNTY					
C & C of Honolulu	dollars	1978	8,806	.....	10.6
Maui County	dollars	1978	7,676	.....	10.3
Hawaii County	dollars	1978	6,687	.....	9.2
Kauai County	dollars	1978	7,044	.....	10.0

n.c.=*not comparable*

**Compared to July 1, 1979.*

***Total personal income and all components are seasonally adjusted at annual rates.*

[1]*These immigration statistics include only those entering Honolulu ports and do not include status changes.*

[2]*Includes wage and salary disbursements, proprietors' income, and other labor income.*

u. s. economic indicators

series	unit	period	number	percent change from preceding period	percent change year ago
GENERAL BUSINESS INDICATORS					
COMPOSITE INDEX OF 12 LEADING INDICATORS*[1]	1967=100	November	137.7	1.5	1.5
GROSS NATIONAL PRODUCT**					
In Current Dollars	bil. $	4th Qtr. 1980	2,741.4p	3.9	9.8
In 1972 Dollars	bil. $	4th Qtr. 1980	1,490.1p	1.2	0
PERSONAL INCOME**	bil. $	December	2,281.5p	0.9	11.2
RETAIL SALES*	bil. $	December	80,330	-1.3	4.8
INDUSTRIAL PRODUCTION*	1967=100	December	150.7e	1.0	-1.2
BANKING AND CREDIT					
DEBITS TO DEMAND DEPOSITS**	bil. $	October	39,611.4	1.5	18.3
TURNOVER OF DEMAND DEPOSITS**	annual rate	October	135.0	0.4	13.7
BANK LOANS*	bil. $	November	899.4e	1.5	6.6
AVERAGE PRIME RATE CHARGED BY BANKS	percent	December	20.35	26.7	33.0
CONSUMER INSTALLMENT DEBT*	mil. $	October	301,674	0.5	0.8
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE**	bil. $	November	231.8	2.5	-3.2
CONSTRUCTION COST INDEXES					
Residences	1967=100	July 1980	270.8	0.4	3.6
Apts, Hotel, Office Bldgs	1967=100	July 1980	273.1	2.6	9.0
EMPLOYMENT					
CIVILIAN EMPLOYMENT*	thous.	December	97,282	0	-0.5
UNEMPLOYMENT*	thous.	December	7,785	-2.0	24.1
UNEMPLOYMENT RATE*	percent	December	7.4	-1.3	23.3
PRICES					
CONSUMER PRICE INDEX (All Items)					
Urban Wage Earners and Clerical Workers (Revised)	1967=100	December	258.7	0.9	12.5
All Urban Consumers	1967=100	December	258.4	0.9	12.4
PRODUCER PRICE INDEXES					
Finished Goods*	1967=100	December	254.7	0.6	11.5
All Commodities	1967=100	December	280.3	0.7	12.3

e=*estimated.* r=*revised.* p=*preliminary.*

*Seasonally adjusted.

**Seasonally adjusted annual rate.

[1]*Excludes one indicator series for which data are not yet available.*

Hawaiian Bank Established 1858 Member FDIC

increase for Hawaii compared favorably against the 12.9% national increase, giving it a 13th place ranking among the 50 states. The 14.7% gain followed a 2nd quarter increase of only 5.5%. The 3rd quarter gain would have been considerably higher had it not been for the September Carpenter's strike which depressed employment income in the construction industry by 7.5%. Disregarding the effect of strikes on the personal income total -- the drag of the Carpenter's strike and the boost imparted by the return to work of the striking Teamsters -- Hawaii's TPI gain would have been more like 15.6%, which would have moved it up considerably in the national rankings.

The most notable industry gains were recorded in retailing where employment income rose 13.7% at an annual rate; in the finance, insurance, and real estate sector, up 19%; and in the federal government sector, up 21.2%.

The biggest boon to 3rd quarter personal income, however, was transfer payments which shot up 10.7% and accounted for 38% of the total TPI gain. The increase was probably largely attributable to automatic cost-of-living increases for social security recipients. Had it not been for the increase in transfer payments, TPI would not have fared nearly so well -- only 10.2% at an annual rate. Hawaii wasn't alone in the quantum leap of transfer payments -- nationwide the average gain was 10.5%.

Economic Indicators

ISSN 0015-2757

A Monthly Report by the Research Division *Dr. Thomas K. Hitch, Senior Vice President* *Shurei Hirozawa, Vice President* *March, 1981*

Hawaii's Changing Population Patterns

The 1980 Census of Population and Housing confirmed the fact that the Neighbor Island counties grew faster than metropolitan City-County of Honolulu (Oahu). The surprise was that Neighbor Island growth was even faster than had been anticipated, resulting in significant changes in population patterns and an accelerating dispersal away from Honolulu.

Resident population of the state increased from 769,913 in 1970 to 965,000 in 1980 for a 25.3 percent gain. Oahu had a 21.0 percent gain in population to 762,874 while the Neighbor Island counties climbed 45.0 percent to 202,126. This shift toward more rapid growth in rural and small-town counties was not unique to Hawaii. For the first time in 160 years, the ten-year growth rate for the United States was higher in rural and small-town counties than in metropolitan areas (15.4 percent nonmetropolitan; 9.1 percent metropolitan). Oahu's proportion of the state population peaked in the early 1970s at 82 percent, then began a steady decline to 79 percent by 1980. Hawaii's rate of growth was surpassed by that of 11 states, all either in the West or in the sunbelt—Alaska, Arizona, Colorado, Florida, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, and Wyoming.

Population growth rates for the Big Island and Maui were dramatic. The Big Island added 45.0 percent more, reaching 92,053, and Maui grew 62.0 percent, to 62,679. Kauai increased by 31.6 percent, to 38,856. These increases stand in sharp contrast to Neighbor Island growth during the 1960s when the Big Island grew only 3.5 percent; Maui, 8.4 percent; and Kauai, 5.6 percent. Oahu's population growth, on the other hand, slowed, from 25.7 percent in the 1960s to 21.0 percent in the 1970s. Amazingly, the actual gain in numbers of people of 132,346, which was two-to-one over that experienced by the Neighbor Islands, was not that much bigger than the Oahu increase during the 1960s of 130,119, and substantially smaller than the 1950s increase of 147,389.

De facto population (all those physically present in the state) grew much faster than resident population in the 1970s due to the rapid growth of tourism. De facto population passed the million mark, reaching 1,056,900 in 1980, a 32.6 percent gain since 1970. This raised the population density to 164 persons per square mile for the state, 1,394 for Oahu, 24 for the Big Island, 105 for Maui, 83 for Kauai, and 27 for Molokai.

In the 1960s Kailua and Kaneohe (the actual towns, not the Census Bureau's changeable definitions) surged past Hilo, long the state's second largest city, with Kailua claiming the distinction in 1970. But in the 1970s the growth of Kailua slowed to 5 percent, Kaneohe soared by 41 percent, and Hilo by 34 percent. However, the most rapidly growing area was Pearl City, where the population expanded by 55 percent and 15,137 more residents were added making Pearl City the state's second largest community next to Honolulu, followed by Kaneohe, Kailua, and then Hilo. Other communities on Oahu that have grown to 20,000 or more are Aiea, Waipahu, and Mililani. On Maui, Wailuku-Kahului grew 43 percent to 23,247 but the population on the rest of the island grew even faster. As a result, Wailuku-Kahului has 36.8 percent of the island's population compared to 42 percent in 1970. The County's program to disperse population has had some success. On the Big Island, Kailua-Kona's population exploded 13-fold to 4,763 partly by expansion of the census boundaries. But Hilo's growth—in numbers—was twice as large, and thus East Hawaii still has two-thirds of the island's population.

In the housing census, the number of units increased from 216,774 in 1970 to 334,251 in 1980, which is a gain of 54.2 percent or more than twice the growth rate for population. This was generally true nationwide—housing grew at a faster rate than population. Hawaii added 117,477 new housing units during the decade, for a population that increased by 195,087. This brought the average number of persons per unit down from 3.55 in 1970 to 2.89 in 1980—still second highest among the states and surpassed only by Utah's. However, Hawaii's household size may actually be the highest as 55,800 condominium units were built during the decade, many of which are used primarily as transient quarters for visitors and not for housing residents. Making the largest percentage gain in the state were Kihei with nearly a tenfold increase to 5,710 units, followed by Lahaina's (West Maui) growth of 349 percent to 7,917 units, both areas where extensive resort condominium development occurred.

What do all of these statistics mean?

The Census shows that Oahu is very highly developed in relation to the Neighbor Island Counties, and that its population density is from 13 to 58 times that of the other major islands. Both the diminishing land area for development, and more so, the reaching of the limits of water supply, are going to force economic growth to the other islands in this decade. One obvious attraction is that the Neighbor Islands have more land available than Oahu, and some of it at lower prices. Water resources on the Neighbor Islands have not yet been fully tapped, and can be developed. Another incentive is that most of the alternate energy being developed will be on the Neighbor Islands, and in time this power could be provided at lower cost than oil-fueled power. The trend, therefore, toward proportionately greater growth for the Neighbor Islands and proportionately less for Oahu will likely continue in the foreseeable future.

First Hawaiian Bank

Established 1858 • Member of F.D.I.C.

business activity - hawaii

series	unit	period	number	percent change from preceding period	percent change year ago
TOURISM					
	number	January	308,647p	-10.6	-8.2
	number				
	number	January	234,454p	-9.8	-6.2
	number				
	number	January	74,193p	-13.1	-14.0
	number				
	number	January	94,198p	-1.4	-4.8
	no. of days	January	11.5	9.5	0.9
	number	Jan.-Dec.	230,891		23.6
	number	January	53,348p	12.0	-21.3
	number	January	117,475p	9.7	1.2
	number				
	number	January	52,900p	-6.6	-21.9
	number				
	number	January	54,269p	-6.6	-6.8
	number				
	number	February	56,769	1.9	4.7
	number	February	33,967	-0.6	-1.1
	number	February	29,473	-2.7	-3.2
	number	February	10,724	7.6	17.3
	number	February	635	13.8	14.0
	number	February	6,705	6.4	13.9
	number	February	4,736	0.7	9.6
	percent	January	64.3	3.0	-13.2
	percent	January	70.9	3.2	-11.9
	percent	January	62.6	4.5	-16.9
	percent	January	48.4	5.9	-19.3
	percent	January	61.1	0.7	-10.9
DEFENSE EXPENDITURES					
	mil. $	4th Qtr.	337.0	-1.7	8.4
	mil. $	4th Qtr.	144.6	9.8	10.0
	mil. $	4th Qtr.	111.8	-1.6	20.5
	mil. $	4th Qtr.	80.6	-17.2	-7.0
SUGAR					
	thous. tons	January	12,244		172.1
	$ per ton	January	590.82	-2.8	50.8
PINEAPPLE SHIPMENTS					
	thous. $	Jan.-May '80	60,315		12.5
	thous. lbs.	January	17,391		27.6
HONOLULU PRICES					
	1967=100	December[3]	237.0	1.5	10.0
	1967=100	December[3]	236.1	0.6	9.9
PUBLIC UTILITIES					
	mil. KWH	January	566.6	-0.5	4.3
	thous. therms	January	4,313	3.9	-7.7
	mgals.	January	715.6	0.5	4.0

p=preliminary
[1]Estimated Wholesale
[2]Excise, taxable income realized at time of shipment
[3]Compared to October 1967

Sugar

The 172.1% increase in sugar production in January of this year relative to January last year reflects the terribly low production levels of last January when Hawaii experienced its worst storm in 20 years.

* * * * * * * * *

Electricity

A 4.3% increase in electricity consumption statewide this January compared to last January following increased costs for electricity to customers of some 40% in less than a year, seemed somewhat

business activity - hawaii [cont.]

series	unit	period	number	percent change from preceding period	percent change year ago
CONSTRUCTION					
	mil. $	Jan.-May '80	659.9		28.5
	mil. $				
PRIVATE PERMITS AUTHORIZED					
	thous. $	Jan.-Aug. '80	457,946		25.3
	thous. $	January '81	15,418		82.6
	thous. $	Jan.-Aug. '80	146,833		131.3
	thous. $	January '81	4,887		-40.2
	thous. $	January '81	3,492		-55.3
	number	Jan.-Aug. '80	2,686		-33.6
	number	January '81	75		-42.7
	number	Jan.-Aug. '80	572		-19.1
	number	January '81	98		2.1
	number	January '81	42		35.5
	number	Jan.-Aug. '80	4,146		46.1
	number	January '81	155		-
	number	Jan.-Aug. '80	1,296		90.0
	number	January '81	9		-88.9
	number	January '81	4		-96.3
	thous. $	Jan.-Aug. '80	250,506		47.6
	thous. $	January '81	37,275		258.3
	thous. $	Jan.-Aug. '80	33,423		89.6
	thous. $	January '81	799		-44.5
	thous. $	January '81	884		-93.6
PUBLIC CONTRACTS AWARDED					
	thous. $	Jan.-Feb.	35,494		96.8
	thous. $	Jan.-Feb.	13,351		276.9
	thous. $	Jan.-Feb.	10,098		79.6
	thous. $	Jan.-Feb.	12,044		35.6
	thous. $	Jan.-Feb.	25,302		59.4
	thous. $	Jan.-Feb.	63		-93.3
	thous. $	Jan.-Feb.	4,285		-32.7
	thous. $	Jan.-Feb.	5,824		2,637.7
HONOLULU CONSTRUCTION COST INDEXES					
	1967=100	February	285.9p	0	0.7
	1967=100	February	286.8p	0.1	5.2
BUSINESS SALES					
	mil. $	Jan.-May '80	8,009.8		15.4
	mil. $	Jan.-May '80	270.6		20.6
	mil. $	Jan.-May '80	48.4		-16.4
	mil. $	Jan.-May '80	2,737.0		12.0
	mil. $	Jan.-May '80	972.2		9.5
	mil. $	Jan.-May '80	1,615.7		12.6
	number	December	2,609	7.9	-24.5

n.a. - not available

curious. Checking with Hawaiian Electric revealed quite the contrary, that in fact electricity consumption likely fell in January, and that residential sales were overstated for the month by some 50% because of a switchover from bi-monthly to monthly billing.

* * * * * * * * *

Diversified Ag

The tally so far for diversified agriculture in 1980 based on early releases prepared by the Agriculture Reporting Service of the State Dept. of Agriculture shows a rath-

finance-hawaii

series	unit	period	number	percent change: from preceding period	percent change: year ago
BANKING					
	mil. $	January 31	4,252.0	-3.1	8.5
	mil. $	January 31	3,472.6	-3.4	7.5
	mil. $	January 31	276.6	-0.1	8.1
	mil. $	January 31	350.4	-2.5	16.3
	mil. $	January 31	152.4	-2.3	15.6
	mil. $	January 31	1,198.6	-9.1	-2.7
	mil. $	January 31	1,005.7	-9.3	-2.4
	mil. $	January 31	81.1	-1.9	-4.6
	mil. $	January 31	82.7	-11.0	-0.8
	mil. $	January 31	29.1	-15.0	-12.0
	mil. $	January	7,200.3	-12.1	1.2
	mil. $	January	6,602.9	-12.0	1.4
	mil. $	January	258.8	-15.3	-0.6
	mil. $	January	244.0	-12.9	-1.0
	mil. $	January	94.7	-12.5	-0.8
	annual rate	January	68.64	-12.1	5.5
	annual rate	January	74.92	-12.0	5.6
	annual rate	January	37.93	-17.1	7.2
	annual rate	January	33.36	-11.0	-1.1
	annual rate	January	35.85	-8.7	9.9
TAX COLLECTIONS					
	mous. $	January	84,284	-10.9	-3.6
	mous. $				
	mous. $	January	72,115	-11.2	-4.8
	mous. $				
	mous. $	January	4,986	6.5	3.9
	mous. $				
	mous. $	January	5,078	-18.4	7.8
	mous. $				
	mous. $	January	2,104	-23.2	-1.0

employment and unemployment-hawaii

series	unit	period	number	percent change: from preceding period	percent change: year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
	mous.	January	400.2p	0.1	n.c.
	mous.	January	379.0p	5.1	n.c.
	mous.	January	21.2p	5.0	n.c.
	percent	January	5.3p	6.0	n.c.
	mous.	January	313.1p	-0.3	n.c.
	mous.	January	297.5p	-0.6	n.c.
	mous.	January	15.5p	5.1	n.c.
	percent	January	5.0p	6.4	n.c.
	mous.	January	33.2p	3.3	n.c.
	mous.	January	31.1p	3.7	n.c.
	mous.	January	2.2p	0	n.c.
	percent	January	6.4p	4.5	n.c.
	mous.	January	36.3p	0.4	n.c.
	mous.	January	33.7p	-0.1	n.c.
	mous.	January	2.7p	10.4	n.c.
	percent	January	7.4p	10.4	n.c.
	mous.	January	17.7p	0.6	n.c.
	mous.	January	16.8p	0.6	n.c.
	mous.	January	0.9p	0	n.c.
	percent	January	5.1p	0	n.c.
JOB COUNT BY INDUSTRY					
	mous.	January	440.3p	1.8	n.c.
	mous.	January	9.1p	-2.2	n.c.
	mous.	January	3.3p	-19.8	n.c.
	mous.	January	16.2p	-0.3	n.c.
	mous.	January	4.4p	1.1	n.c.
	mous.	January	11.8p	0	n.c.
	mous.	January	3.1p	1.7	n.c.
	mous.	January 11 17[2]	7.4p	17.8	n.c.
	mous.	January	24.3p	0.4	n.c.
	mous.	January	21.1p	0.2	n.c.
	mous.	January	7.3p	0.7	n.c.
	mous.	January	2.7p	0	n.c.
	mous.	January	85.3p	-2.5	n.c.
	mous.	January	18.0p	-1.9	n.c.
	mous.	January	33.5p	0	n.c.
	mous.	January	25.1p	1.0	n.c.
	mous.	January	14.4p	1.4	n.c.
	mous.	January	5.1p	0	n.c.
	mous.	January	3.4p	3.1	n.c.
	mous.	January	1.8p	0	n.c.
	mous.	January	75.9p	0.9	n.c.
	mous.	January	29.9p	0.3	n.c.
	mous.	January	10.8p	3.1	n.c.
	mous.	January	18.1p	1.3	n.c.
	mous.	January	44.9p	5.3	n.c.
	mous.	January	13.0p	1.5	n.c.
HOURS AND EARNINGS BY INDUSTRY					
	hours	January	12.57p	0.9	8.3
	hours	January	39.2p	2.3	42.5
	hours	January	7.30p	2.8	9.0
	hours	January	38.5p	5.4	2.4
	hours	January	8.43p	4.0	-0.2
	hours	January	45.2p	0.4	-1.5
	hours	January	5.83p	3.0	5.2
	hours	January	32.8p	-2.4	-0.6
	hours	January	217.44p	13.0	22.9
	hours	January	5.83p	4.3	4.1
	hours	January	32.3p	10.2	0
	hours	January	5.85	0.3	11.9
	hours	January	38.8	0.5	16.9

n.c. = not comparable
p = preliminary
[1]Series includes agricultural employment during January survey week.
[2]Agricultural jobs are included in the total job count even though the period differs. Agricultural employment is surveyed only four times a year, in January, April, July, and October. These dates also apply to the field positions of sugar and pineapple jobs.
[3]Excludes some office and supervisory workers.

er unscintillating year last year for diversified ag. Overall the gain in the value of sales will likely come in considerably below 10%, probably falling short of the inflation rate.

Macadamia nuts was last year's star performer, imparting a hefty boost to the total for diversified ag. as higher production, up 10.7%, and prices up 11.3%, combined to lift sales 23.1%. Another strong sector again last year was the nursery products industry. The grower survey is not yet complete but preliminary estimates available for the two largest components — potted foliage for indoor use and anthuriums — show sales gains of 13.1%.

However, overall returns in the diversified crop sector last year pale against the gains made in 1979 when, in spite of production declines in many major product areas, prices soared bringing 21.8% greater revenues. Last year no major production declines were reported for crops outside of coffee, but the year didn't bring the kinds of price gains experienced in 1979 either, so that overall the increase in sales was much more modest. Papaya was the classic example. Production bounded

public assistance-hawaii

series	unit	period	number	percent change: from preceding period	percent change: year ago
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
	number	January	13,147	-5.9	21.2
	number	January	6,107	7.9	-22.8
	number	January	467	21.0	-14.6
	mous. $	January	6,150	17.9	49.2
PUBLIC ASSISTANCE					
	no. persons	January	71,413	0.3	1.9
	no. cases	4th Qtr. 1980	12,464	-6.5	-9.5
	no. patients	January	52,453	5.9	22.3
	no. persons	January	101,817	-0.4	1.4
	mous. $	January	9,449	0.8	3.5
	mous. $	4th Qtr. 1980	5,006	14.9	9.6
	mous. $	January	10,438	19.4	47.4
	mous. $	January	5,881	19.5	17.7

population, personal income-hawaii

series	unit	period	number	percent change: from preceding period	percent change: year ago
POPULATION					
	number	April 1, 1980	1,056,500p		n.c.
	number	April 1, 1980	965,000†		n.c.
	number	April 1, 1980	762,874†		n.c.
	number	April 1, 1980	70,991†		n.c.
	number	April 1, 1980	92,053†		n.c.
	number	April 1, 1980	39,082†		n.c.
	number	April 1, 1980	903,605p		n.c.
	number	April 1, 1980	61,019		5.4*
	number	April 1, 1980	48,813		8.7*
	number	April 1, 1980	12,206		5.8*
	number	April 1, 1980	64,023		0.8*
	number	12 mo. total ending Jan. 1981	5,976		8.4
PERSONAL INCOME					
	mil. $	3rd Qtr. 1980	9,421	3.5	11.4
	mil. $	3rd Qtr. 1980	7,215	2.3	4.2
	mil. $	3rd Qtr. 1980	395	6.2	9.4
	mil. $	3rd Qtr. 1980	520	7.5	0.8
	mil. $	3rd Qtr. 1980	340	1.5	13.0
	mil. $	3rd Qtr. 1980	852	3.3	7.6
	mil. $	3rd Qtr. 1980	612	4.4	19.8
	mil. $	3rd Qtr. 1980	687	1.5	7.8
	mil. $	3rd Qtr. 1980	1,498	3.0	12.5
	mil. $	3rd Qtr. 1980	224	0.4	1.8
	mil. $	3rd Qtr. 1980	642	8.3	10.9
	mil. $	3rd Qtr. 1980	638	1.8	8.9
	mil. $	3rd Qtr. 1980	807	1.3	9.4
	mil. $	3rd Qtr. 1980	1,381	2.8	18.3
	mil. $	3rd Qtr. 1980	825	16.2	21.1
PER CAPITA PERSONAL INCOME					
	dollars	1979	9,223		7.1
	dollars	1978	8,806		10.6
	dollars	1978	7,676		10.3
	dollars	1978	6,687		9.2
	dollars	1978	7,044		10.0

p = preliminary
r = revised
n.c. = not comparable
*Compared to July 1, 1979.
**Total personal income and all components are seasonally adjusted at annual rates.
†These immigration statistics include only those entering Honolulu ports and do not include intra-state change.
‡Includes wage and salary disbursements, proprietors' income, and other labor income.

ahead 16.8% but prices were weak, so the revenue gain was only 3.2%.

The livestock sector last year turned in pretty much the same kind of performance with respect to sales as in 1979 when the revenue gain was 7.9%. When final figures are available, 1980 will probably come in a percent or so under that. But the underlying picture was quite different. In 1979 significant production declines were recorded in many livestock categories but they were countered by hefty price gains, whereas in 1980 overall production was up with no major declines experienced, but prices were not nearly so strong either, so that in total revenues rose somewhat less than in 1979. Cattle, the largest livestock sector, contributed the drag on the total. Production fell 2.1% and revenues increased only 1.5%.

u.s. economic indicators

series	unit	period	number	percent change: from preceding period	percent change: year ago
GENERAL BUSINESS INDICATORS					
	1967=100	December	136.4	0.9	0.9
	bil. $	4th Qtr. 1980	2,732.3†	3.6	9.5
	bil. $	4th Qtr. 1980	1,486.5†	1.0	0.3
	bil. $	January	2,298.1p	0.9	10.6
	bil. $	January	84.009	2.0	5.7
	1967=100	January	151.8e	0.6	-0.6
BANKING AND CREDIT					
	bil. $	December	42,538.0	4.4	27.9
	annual rate	December	150.8	6.3	27.4
	bil. $	January	921.5e	1.3	7.3
	percent	February	19.43	-3.6	24.3
	mil. $	November	304,855	0.3	1.1
CONSTRUCTION					
	bil. $	December	241.6	4.3	1.0
	1967=100	November	279.1	1.4	5.0
	1967=100	November	262.1	0.7	9.7
EMPLOYMENT					
	mous.	January	97,696	0.4	0
	mous.	January	7,847	0.6	20.7
	percent	January	7.4	0	19.4
PRICES					
	1967=100	January	260.7	0.8	11.7
	1967=100	January	260.5	0.8	11.7
	1967=100	January	259.7	0.9	10.9
	1967=100	January	283.5	1.1	11.2

e = estimated
r = revised
p = preliminary
*Seasonally adjusted.
**Seasonally adjusted annual rate.
†Excludes one indicator series for which data are not yet available.

DIVERSIFIED CROPS — 1980 (preliminary)

LIVESTOCK

	Volume (000 lbs)	% Change	Value ($000)	% Change
Market Hogs	6,030	13.6	5,599	15.4
Commercial Beef	27,864	-2.1	26,095	1.5
Chicken (Broilers)	8,657	10.5	3,896	15.6
Eggs	220.5 mil	-3.7	14,884	5.6
Milk	152,000	1.3	27,536	8.6

CROPS

	Volume (000 lbs)	% Change	Value ($000)	% Change
Veg. & Melons	70,440	0.3	18,430	0.6
Fruit (excl. pine)	50,910	16.8	11,217	3.2
Macadamia Nuts	29,500	10.7	20,650	23.1
Nursery Prod.	n.a.	--	n.a.	--
Potted Fol.	n.a.	--	4,444	12.1
Anthuriums	n.a.	--	5,916	15.1
Coffee	1,450	-55.8	2,175	-30.6
Taro	6,270	-5.6	1,248	14.6

* * * * * * * *

First Hawaiian Bank Established 1858 Member FDIC